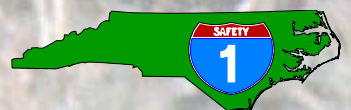


North Carolina's Strategic Highway Safety Plan

Last Revised:
March 2007



NORTH CAROLINA STRATEGIC HIGHWAY SAFETY PLAN

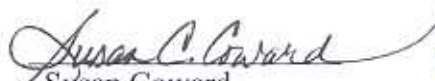
N.C. Executive Committee for Highway Safety North Carolina Department of Transportation Federal Highway Administration

- MISSION:** Establish highway safety goals and objectives and prioritize, implement and evaluate coordinated, multi-disciplinary policies and programs to reduce fatalities, injuries and economic losses related to crashes.
- VISION:** North Carolina has a multi-disciplinary, multi-agency approach to research, planning, design, construction, maintenance, operation and evaluation of transportation systems, which results in reduced fatalities, injuries and economic losses related to crashes. In addition, there is a coordinated effort to address emerging safety issues.
- GOAL:** Reduce the fatal rate to 1.0 fatalities/100 MVM traveled by 2008

The North Carolina Strategic Highway Safety Plan (SHSP) has been developed under the guidance and direction of the North Carolina Executive Committee for Highway Safety (ECHS) in an effort to reduce the number of crashes, injuries and fatalities on our state's highways by addressing highway safety issues from a comprehensive and collaborative effort among all of the state's safety partners.

By signing this document, the signatories agree to support the Committee mission and goal as well as the North Carolina Strategic Highway Safety Plan.


Lyndo Tippet
Secretary
NCDOT


Susan Coward
Committee Chair
NC ECHS

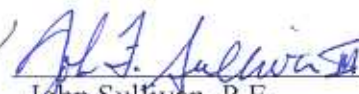

John Sullivan, P.E.
Division Administrator
FHWA

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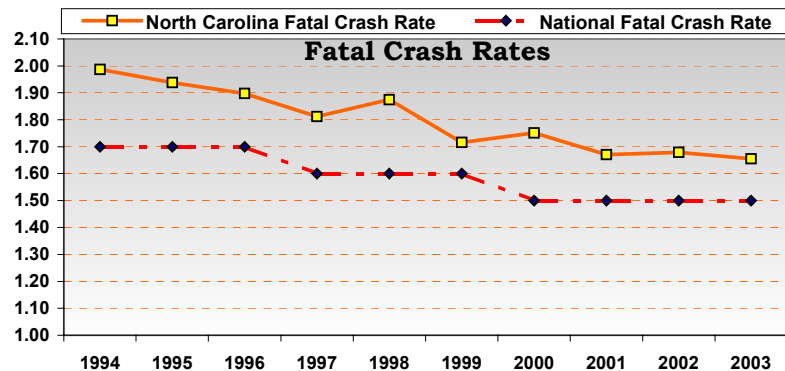
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EXECUTIVE SUMMARY

While major strides and enhancements have been made in the areas of highway safety within North Carolina, there is still room for improvement. In the past ten (10) years, over 15,000 people have lost their lives on North Carolina highways due to traffic crashes. In 2003, there were 231,247 reported traffic crashes that resulted in 1,552 persons killed and over 134,742 injuries on our highways.

North Carolina's safety leaders all envision a future where traffic related deaths and injury rates continue to decline. During the last ten (10) years, the state's fatal crash rate (number of crashes per 100 million vehicle miles traveled) has shown a steady decrease, but this has been primarily due to the nearly 45% increase in vehicle miles traveled. Unfortunately, the number of annual fatalities has remained fairly constant and shown only slight decreases in recent years. Safety leaders must strive to implement sustainable ways of significantly reducing the actual number of fatalities and injuries to the citizens and visitors of this state.

Moderate reductions in North Carolina's highway death toll can be continued through current programs, but a more concentrated effort will prevent many more crashes and injuries and save a significant number of lives and dollars. In 2003, the "crash tax" or cost of traffic related crashes, fatalities and injuries was over \$1,100 per person in the state.



To address this epidemic and in an effort to coordinate the many safety initiatives both within and outside of the Department of Transportation, with an emphasis on efficiency of resources and the prioritization of programs, the North Carolina Executive Committee for Highway Safety (ECHS) was established and empowered. The ECHS comprised of representatives from top management of selected disciplines involved in highway safety who control the current and potentially available resources for utilization in safety efforts. The Committee has endorsed and adopted the American Association of State Highway and Transportation Officials' (AASHTO) Strategic Highway Safety Plan (SHSP) as its working plan with the understanding that this is a dynamic document subject to modifications as necessary to address North Carolina's needs.

The Committee has also adopted the AASHTO goal of a fatal rate of 1.0 fatalities per 100 Million Vehicle Miles Traveled (MVMT) by 2008. If present trends in the number of vehicle miles traveled continue, this ambitious goal will still require a reduction of over 500 fatalities per year. While North Carolina's fatal rate has continued to progress towards the national average, present trends alone will not achieve our goal of 1.0 fatalities per 100 MVMT by 2008.

Implementation of the strategies and directives of the Executive Committee for Highway Safety and the AASHTO Strategic Highway Safety Plan are viewed as the key mechanism to reach this goal and thereby significantly reduce the annual number of fatalities on our highways.

PREFACE

In developing, managing and implementing a comprehensive highway safety plan, North Carolina has chosen a different route from the majority of other states. Other states have invested large amounts of resources, both money and personnel, in developing a plan or an outline of what the needs are and how to best meet these needs.

North Carolina however, has identified the needs based upon the AASHTO Strategic Highway Safety Plan, verified these utilizing statewide crash data and actual engineering investigations and countermeasure recommendations and then prioritized these needs. The top priorities are actually being addressed and strategies are being developed and implemented on an on-going basis. This data driven, engineering process is documented in the remainder of this Strategic Highway Safety Plan.

North Carolina's Strategic Highway Safety Plan is unique because it serves as a *dynamic resource* that will document the progress of North Carolina's highway safety efforts. This guide documents North Carolina's strategic highway safety plan and its development, implementation and progress through the Executive Committee for Highway Safety and the myriad of safety partners committed to saving lives.

This tool will be continually updated and available on-line in an electronic format (<http://www.ncdot.org/doh/preconstruct/traffic/echs/>).

N.C.'s EXECUTIVE COMMITTEE FOR HIGHWAY SAFETY

The Need for an Executive Committee for Highway Safety

Enhancing highway safety is critical to the health and well being of the citizens of North Carolina and those who travel and conduct business on our streets and highways. Without the continued substantial improvement in highway safety, traffic crashes will continue to be a leading cause of death and injury for a large segment of the population, as well as a major socio-economic drain of the resources of government and the people of this State.

Thousands of people are injured and killed on North Carolina's highways each year. In 2005, there were 231,247 reported traffic crashes that resulted in 1,552 fatalities and another 134,742 injuries. This translates into one death or injury every 3.9 minutes. Below is a summary of North Carolina crash statistics.

- ◆ One traffic crash every 2.3 minutes.
- ◆ One property damage crash every 3.6 minutes.
- ◆ One speed related injury or fatality every 17.6 minutes.
- ◆ One alcohol related injury or fatality every 54.7 minutes.
- ◆ One driver killed or injured every 6 minutes.
- ◆ One passenger killed or injured every 12 minutes.
- ◆ One driver age 19 or under involved in a crash every 23.6 minutes.

Individually, the losses are devastating; collectively, the economic cost is nearly \$9.5 billion dollars per year or over \$26 million dollars each day. Figures 1, 2 and 3 show North Carolina's ten year crash, injury and fatal trends.

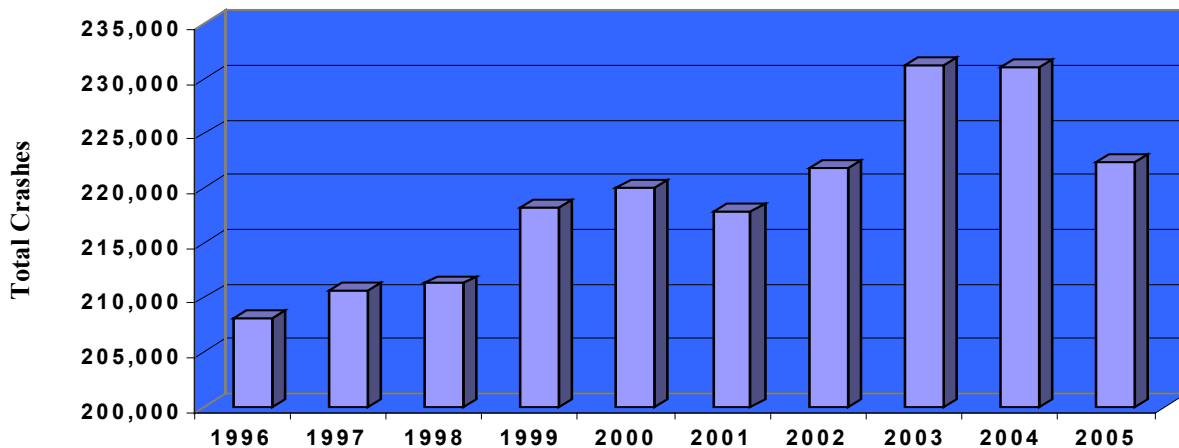


FIGURE 1 – 1996-2005 North Carolina Highway Crashes

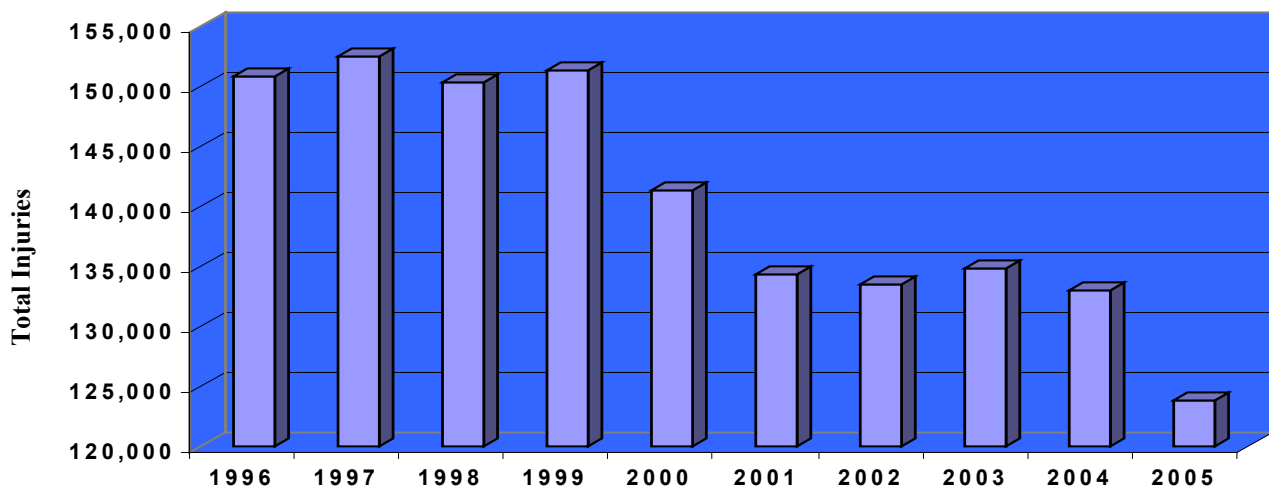


FIGURE 2 – 1996-2005 North Carolina Highway Injuries

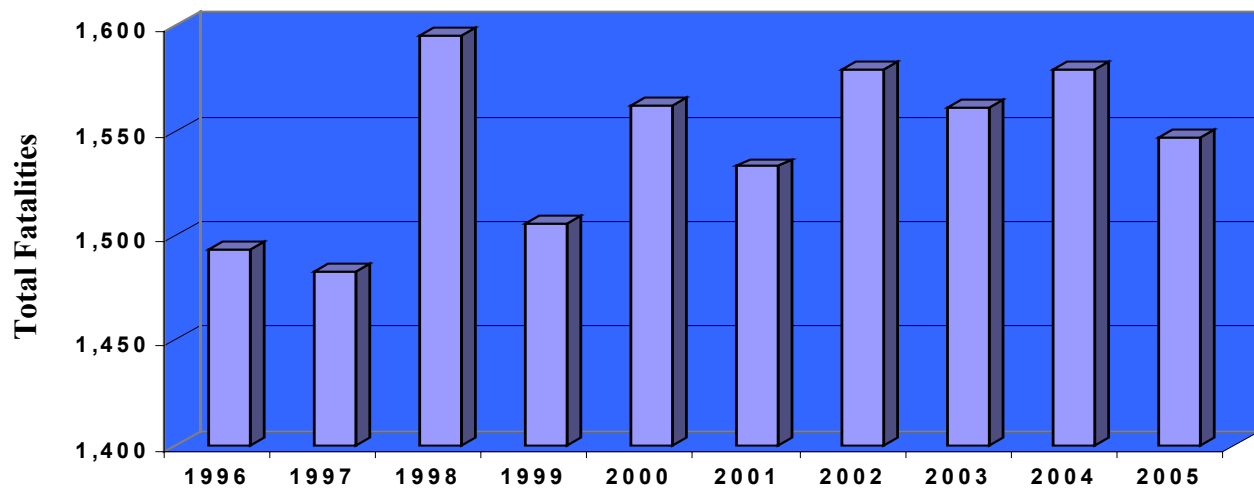
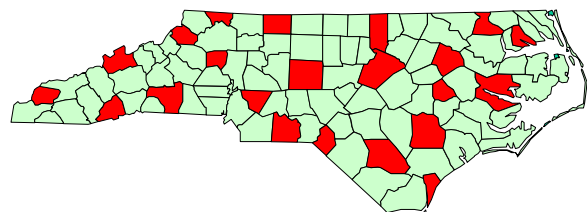


FIGURE 3 – North Carolina Highway Fatalities

North Carolina's Safety Picture

The task of addressing highway safety within North Carolina is monumental. North Carolina's population has increased over 21% in the last ten (10) years while the number of estimated vehicle miles traveled (VMT) have increased over 44%. In 2003, there were over 8.3 million people in the state and the VMT reached over 937 million, dispersed over nearly 100,000 miles of state and local maintained roads.

The fatal crash rate in the state over the past 20 years has been on a steady decline (from 3.0 in 1984 to 1.66 in 2003), however, over the past several years, the trend has begun to flatten out. In 2003, there was a 1.3% decrease in the number of fatalities, but a 4.2% increase in the total number of collisions.



If current trends continue over the next ten (10) years, the number of motorists on North Carolina Highways that will be killed or injured in a motor vehicle crash will be equivalent to every man, woman and child in the 22 counties indicated in red on the above map.

North Carolina has built a solid reputation as a national leader in the area of highway safety and many of the model safety programs that are now utilized across the nation were initially developed and implemented within the state. In essence, North Carolina has always been (and continues to be) on the forefront of highway safety. Listed

below are examples of some of the major safety initiatives within the State. For more detail on each, refer to Appendix A.

- ◆ Comprehensive Traffic Safety Reviews
- ◆ Traffic Safety Analysis
- ◆ School Safety Initiative
- ◆ Road Safety Reviews
- ◆ Rumble Strips
- ◆ North Carolina Moving Ahead (NCMA)
- ◆ Highway Safety Improvement Program
- ◆ Median Barrier
- ◆ Booze It And Loose It
- ◆ Click It or Ticket
- ◆ Roadside Safety Devices Brochure
- ◆ Fatal Slip Distribution
- ◆ Electronic Reporting
- ◆ TEAAS Development
- ◆ Traffic Crash Facts Report
- ◆ SMARTZONE Technologies

As illustrated, there have been many major efforts to improve highway safety within North Carolina, however, current crash data shows that there is still much left to be done. Table 1 summarizes motor vehicle crash data and characteristics about the population and transportation system for North Carolina for the past ten years.

Table 1
North Carolina Summary of Traffic Demographics and Fatalities 1994 - 2003

Year	Population (Thousands)	Licensed Drivers (Thousands)	Registered Vehicles (Thousands)	Vehicle Miles Traveled (100 Million)	Traffic Fatalities	Fatality Rate	Alcohol Involved Fatalities	Percent Alcohol Involved
1994	6,950	4,984	6,176	719.24	1429	1.99	314	21.97%
1995	7,063	5,139	6,315	744.47	1443	1.94	392	27.17%
1996	7,194	5,502	6,420	786.14	1492	1.90	460	30.83%
1997	7,323	5,781	6,596	818.33	1483	1.81	462	31.15%
1998	7,431	5,368	6,838	851.52	1596	1.87	469	29.39%
1999	7,546	5,758	7,068	877.69	1506	1.72	407	27.03%
2000	7,651	5,937	6,875	892.46	1563	1.75	465	29.75%
2001	8,049	6,092	6,967	915.71	1530	1.67	371	24.25%
2002	8,188	6,161	7,142	936.86	1573	1.68	379	24.09%
2003	8,308	6,292	7,257	937.63	1552	1.66	380	24.48%
% Change								
1994-2003	19.53%	26.23%	17.50%	30.36%	8.61%	-16.69%	21.02%	
% Change								
2001-2003	3.11%	3.18%	3.99%	2.34%	1.42%	-0.94%	2.37%	

Source: 1994 – 2003 North Carolina Traffic Crash Facts

Formation of the Executive Committee for Highway Safety

The North Carolina Department of Transportation (NCDOT) and other state and local agencies within North Carolina have put forth many successful ventures to identify and address highway safety. Collectively these efforts have yielded positive benefits. However, it was recognized that if all of the key stakeholders in highway safety worked together collaboratively instead of individually, efforts and resources could be better utilized to address the growing challenge of reducing fatalities and injuries on our highways.

In July 2002, it was decided that the time had come to approach highway safety from a more systematic and collaborative perspective. Unlike some of the more traditional programs around the

country, North Carolina's efforts were started and built from the ground up with a solid safety information foundation. The Traffic Safety Systems Management Unit which is part of the Traffic Engineering and Safety Systems Branch began discussing the best approach to a collective effort in addressing highway safety. Once the plan had been formulated, it was discussed with the State Traffic Engineer, the Director of Preconstruction, the State Highway Administrator and finally the Secretary of the Department of Transportation. Along the way, minor revisions were made to the general plan which consisted primarily of forming a cohesive group of leaders in traffic safety. After the plan had received final approval, the next step was to decide who the appropriate members would be. It was decided that the group size should be limited and that the membership should be comprised of representatives from top management of selected disciplines involved in highway safety who control the current and potentially available resources for utilization in safety efforts. After the list of recommended safety champions was formed, individual meetings were held with the prospective members to discuss the overall vision, the intent and the charge of the Committee. Acceptance of all members was readily obtained and in April 2003, the first meeting of the North Carolina Executive Committee for Highway Safety (ECHS) was held. The following is a list of committee member position levels and their corresponding agencies that are currently represented on the ECHS.

North Carolina's Executive Committee for Highway Safety

Committee Chair Deputy Secretary – Intergovernmental Affairs N.C. Department of Transportation	Director – Preconstruction N.C. Department of Transportation
Director Safety & Loss Control N.C. Department of Transportation	Chairman - Board of Transportation N.C. Department of Transportation
Director N.C. Conference of District Attorneys	Director Governor's Highway Safety Program
State Traffic Safety Engineer N.C. Department of Transportation	Director - Hispanic/Latino Affairs State of North Carolina; Office of The Governor
State Traffic Engineer N.C. Department of Transportation	Director N.C. Office of Emergency Medical Services
Director - Public Information Office N.C. Department of Transportation	Division Administrator Federal Highway Administration
State Highway Administrator N.C. Department of Transportation	Director of Transportation City of Greensboro
Chief Engineer – Operations N.C. Department of Transportation	Commissioner N.C. Department of Insurance
Manager – Program Development Branch N.C. Department of Transportation	Director UNC Highway Safety Research Center
Colonel N.C. State Highway Patrol	Commissioner NCDOT - Division of Motor Vehicles
Director Eastern Carolina Injury Prevention Program	Chief of Police Jacksonville Police Department

The Executive Committee for Highway Safety (ECHS) represents North Carolina's comprehensive strategic plan to enhance highway safety that was assembled collaboratively by major stakeholders in the highway safety arena. The energy generated and knowledge of the multi-disciplined team members has provided many opportunities for innovative strategies. Representatives from different agencies are teamed into working groups to find solutions to a common goal. A key "facilitator" works closely with all of the working groups through meetings and discussions with members. This central point of reference provides assistance eliminating road blocks, suggests champions for strategy involvement and ensures elimination of redundant strategies.



Most previous highway safety plans within the state focused more on specific programs and projects than on broad strategies and typically were oriented towards meeting federal requirements (in the pursuit of federal highway safety funds) than on meeting the State's needs.

At the initial ECHS meeting, members of the Executive Committee developed mission and vision statements aimed at effectively describing what the committee was and what the core objectives were. These are as follows.

VISION

North Carolina has a multi-disciplinary, multi-agency approach to research, planning, design, construction, maintenance, operation and evaluation of transportation systems, which results in reduced fatalities, injuries and economic losses related to crashes. In addition, there is a coordinated effort to address emerging safety issues.

MISSION

Establish highway safety goals and objectives and prioritize, implement and evaluate coordinated, multi-disciplinary policies and programs to reduce fatalities, injuries and economic losses related to crashes.

Identifying a Champion

Within North Carolina's SHSP efforts, several champions have emerged. First and foremost, the Secretary of the N.C. Department of Transportation has embraced the SHSP and it's Executive Committee and has made these efforts one of ten items on his agenda for 2006. Secondly, the Executive Committee and all of its working groups and their members are champions themselves. These are the individuals who are developing and implementing North Carolina's SHSP. Finally, the Traffic Safety Unit of the Traffic Engineering and Safety Systems Branch has assumed a major leadership role in this endeavor and is working to ensure that all safety partners and their efforts have been integrated into a collaborative group.

In addition to the Executive Committee for Highway Safety, there are several other key safety initiatives within the state that have been recognized and have been incorporated into the SHSP. Agencies and groups such as The State Highway Patrol, The Governor's Highway Safety Program and the NCDOT's Work Zone Safety Group are either members of the ECHS and/or serve on many of the various working groups as needed. Each of these groups each have specific strategic plans

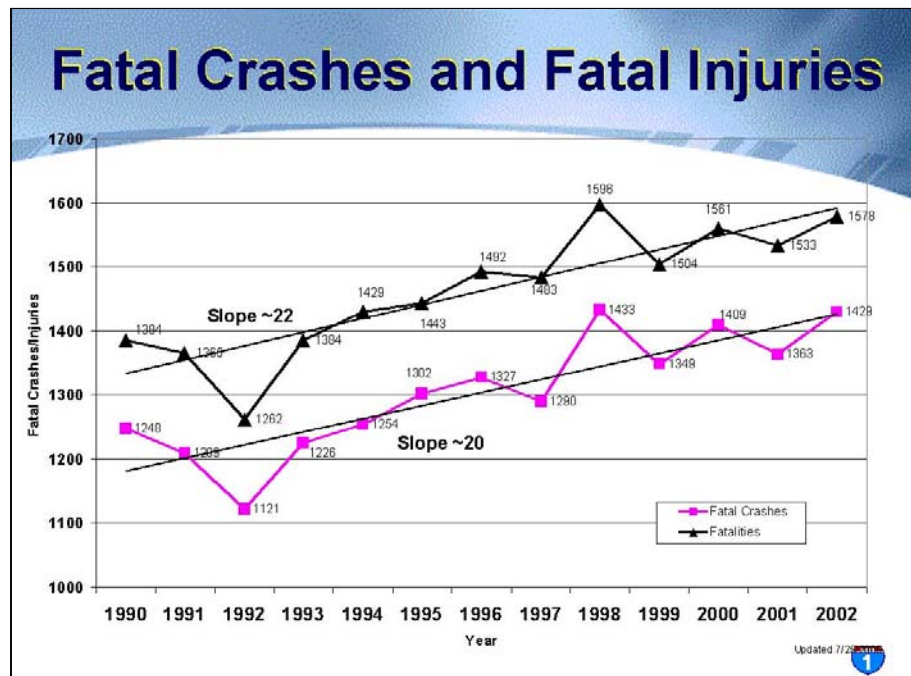
that have been integrated into the efforts of the ECHS and are included in the appendix of this document.

The Safety Planning Group of the Traffic Safety Unit is also working with key safety partners to identify and address potential highway safety issues in the initial planning stages of projects through the use of traffic safety analysis (TSA). The TSA is a comprehensive traffic safety review of projects that are generally in the pre-scoping phase, and is designed to proactively introduce safety into the project development process. The TSA is a collection of roadway use driven analyses designed to make sure that the proposed project will address any current traffic safety issues, mitigate any potential future traffic safety issues, and assist with the Purpose and Need statement for the project. Different analyses are conducted per project depending on whether the project route is located on the National Highway System (NHS), the STAA vehicle network, the North Carolina Intrastate System, a North Carolina Strategic Highway Corridor (SHC), and/or evacuation (hurricane, nuclear, or flood), bicycle, pedestrian, and transit routes. The TSA process can also be used to assist as a framework for conducting Road Safety Reviews (RSR). For more information on RSRs, see Appendix A.

Primary among the many items reviewed during the course of a TSA are roadway and bridge parameters, ordinances, at-grade railroad crossing information, signal plans, traffic counts and movements, school information, and current/proposed/future land uses for the project area (if available). Other studies and safety programs that may also affect the TSA include feasibility studies and other pre-planning documentation, spot safety improvements, the Highway Safety Improvement Program (HSIP), the Secondary Road Safety Program (SRSP), and the North Carolina Moving Ahead (NCMA) program.

SHSP Goal

More than 1,500 people have lost their lives on North Carolina's highways each of the past five years. As illustrated in the graph, in spite of the many safety efforts within the state, both fatal crashes and fatalities have both been on a steep incline. This continual increase further demonstrates the need for a strategic highway safety plan and for all safety partners to work in unison in identifying safety issues and allocating the required resources to implement viable strategies.



The ultimate goal of the ECHS is to develop and implement short and long term, sustainable strategies that will reduce the number of fatalities and injuries on our highways and not only cause the slope of the lines in the above graph to level off, but to eventually drive the slope of the graph in the negative direction. The Committee's immediate goal is to develop and implement these strategies in a manner that will not only allow North Carolina to meet, but rather exceed the adopted

national goal of 1.0 fatalities per 100 MVM traveled by the year 2008. Although this is an achievable goal, it will not be an easy task to accomplish. Even if the vehicle miles traveled continues to increase as they historically have, in order to achieve the 1.0 fatality rate, North Carolina will have to reduce our overall fatalities by more than 500 per year.

Due to so many safety initiatives and efforts simultaneously being implemented within our state, it is often difficult at best to attribute one strategy or countermeasure or one target/focus area as being the key reason for reductions in crashes, fatalities or injuries. For this reason, North Carolina has made the conscious decision not to set specific goals within a target area (i.e. reduce run off road crashes by 15%), but rather to ensure that each working group is developing sustainable countermeasures designed to reduce the target crashes of the particular group. If each group can make positive progress of reducing the crashes, fatalities and injuries within their target areas, this will allow the state as a whole to achieve and hopefully surpass it's strategic goal. In addition, we believe that many of the "easy to implement" items have been explored and adopted. The remaining efforts are strategic in nature, systematic, costly and difficult to implement. This is why North Carolina is working towards sustainable safety.

To further ensure that positive progress is being made within each group, all implemented countermeasures will be evaluated on a regular basis. Also, if a countermeasure is not working, we need to know that as well. Countermeasures that prove successful need to be identified and replicated where and when possible.

North Carolina's Working Plan

One of the initial decisions that the Executive Committee made, was the need to have a solid working plan by which to guide the direction of the Committee and its efforts. In 1997, the American Association of State Highway and Transportation Officials (AASHTO) Standing Committee for Highway Traffic Safety, along with the Federal Highway Administration (FHWA), the National Highway Traffic Safety Administration (NHTSA) and the Transportation Research Board Committee on Transportation Safety assembled a group of national safety experts in driver, vehicle and highway issues from various organizations. The specific purpose of this group was to develop a strategic plan that would impact the nation's present and predicted statistics on vehicle-related deaths and injuries. The end result was the AASHTO Strategic Highway Safety Plan (SHSP) which focuses on 22 key emphasis areas and contains strategies designed to improve each area's major problem areas or to advance effective practices by means that are both cost-effective and acceptable to a significant majority of Americans.

The AASHTO SHSP divides the 22 key emphasis areas into six major categories: *Drivers, Special Users, Vehicles, Highways, Emergency Medical Services and Management*. A review of the key emphasis areas shows that with a few exceptions, all

AASHTO SHSP Key Emphasis

PART 1: DRIVERS

1. Instituting Graduated Licensing for Young Drivers
2. Ensuring Drivers are Licensed and Fully Competent
3. Sustaining Proficiency in Older Drivers
4. Curbing Aggressive Driving
5. Reducing Impaired Driving
6. Keeping Drivers Alert
7. Increasing Driver Safety Awareness
8. Increasing Seat Belt Usage

PART 2: SPECIAL USERS

9. Making Walking and Street Crossing Safer
10. Ensuring Safer Bicycle Travel

PART 3: VEHICLES

11. Improving Motorcycle Safety and Increasing Motorcycle Awareness
12. Making Truck Travel Safer
13. Increasing Safety Enhancements in Vehicles

PART 4: HIGHWAYS

14. Reducing Vehicle-Train Crashes
15. Keeping Vehicles on the Roadway
16. Minimizing the Consequences of Leaving the Road
17. Improving the Design and Operation of Highway Intersections
18. Reducing Head-On and Across Median Crashes
19. Designing Safer Work Zones

PART 5: EMERGENCY MEDICAL SERVICES

20. Enhancing Emergency Medical Capabilities to Increase Survivability

PART 6: MANAGEMENT

21. Improving Information and Decision Support Systems
22. Creating More Effective Processes and Safety Management Systems

of these are directly applicable to North Carolina's needs as revealed by preliminary analysis of historical crash data. Although some of the identified emphasis areas may be more prevalent issues in North Carolina than others and other safety issues may not be addressed in part or whole, the AASHTO SHSP correlates closely with most of North Carolina's crash data. Therefore, since the AASHTO SHSP and North Carolina's needs meshed so closely, it was recommended that North Carolina formally adopt the AASHTO Strategic Highway Safety Plan. The Committee noted that all strategies in the AASHTO plan may not be applicable to NC's needs and that NC may have needs that are not specifically addressed within the AASHTO plan. It was therefore decided that this would be a dynamic document that would be modified as needed as the ECHS progressed. The AASHTO SHSP was adopted by the committee at their initial meeting in April 2003.

Traffic Records

A vital component in any successful SHSP is access to quality crash data and other traffic records. North Carolina is fortunate to again be a national leader in these areas. With nearly 100,000 miles of state and local maintained roads, having an accurate, up to date traffic records system is imperative to identifying and remediating highway safety issues. Early on, the ECHS adopted North Carolina's Traffic Records Coordinating Committee (TRCC) as a working group. The TRCC works through the Traffic Safety Unit and the many other agencies that are represented on the ECHS, therefore North Carolina's TRCC has the full support of the ECHS and is a vital component of the SHSP. Membership on the TRCC includes:

North Carolina's Traffic Records Coordinating Committee

Committee Co-Chair Brian Mayhew, PE Data User & Manager N.C. DOT - Traffic Engineering & Safety	Committee Co-Chair Eric Rodgmen Data User / Research UNC Highway Safety Research Center
Ethel Keen Crash, Vehicle & Driver Systems N.C. Division of Motor Vehicles	Don Nail Data User Governor's Highway Safety Program
Janet Greene Citation & Adjudication Systems Administrative Office of the Courts	L.C. Smith Roadway Inventory / GIS N.C. Department of Transportation - GIS Unit
Sgt. Jerry Burton Enforcement – Data Collector, User N.C. State Highway Patrol	Greg Mears, MD PreMIS, NC Trauma Registry N.C. Office of Emergency Medical Services
Local Law Enforcement Agency	Brad Hibbs Federal Highway Administration
Metropolitan Planning Organization	Local Municipality

The goal of the NC TRCC is to provide accurate and complete traffic records data in a timely manner that protects the privacy of citizens; to provide the environment where collaboration, data and resource sharing occurs naturally; and to identify success by measuring results, ultimately leading to a reduction in traffic fatalities, injuries, and crashes. The TRCC will work to achieve this goal through the following roles and functions:

- Provide for coordination, cooperation, and collaboration of agency activities that could effect or improve the state traffic safety data or systems while ensuring the protection of confidential information.

- Prepare, update, and maintain NC's TRCC Implementation and Progress Guide and to provide a plan for the implementation of traffic safety systems and data improvements.
- Recommend and provide strategies to NC's Executive Committee for Highway Safety for endorsement and action.
- Develop interagency project teams to develop implementation plans for carrying out the objectives of the guide as necessary.
- Provide a forum for review and endorsement of programs, regulations, projects and methodologies to implement the improvements identified in the implementation guide.
- Review programs, regulations, projects, and methodologies for agreement with the TRCC's mission and goals.
- Provide coordination for programs, projects, and regulations as they become operational.
- Receive periodic updates from the project teams.
- Endorse and/or implement projects to achieve quality traffic safety data from state traffic records systems.
- Encourage and provide for the sharing of data amongst all members, owners, users and collectors and collaborate on interagency projects.
- Provide for adequate communication and review between members of all changes or modifications to systems, regulations, collection procedures, or usage and analysis needs.
- Support electronic data collection for all types of data including crash, roadway (including volume and asset management), vehicle, driver, medical, and citation or adjudication data.
- Simplify all data collection whenever possible for any record. Increase automation and only collect data necessary from field efforts.
- Encourage and provide for the marketing of traffic safety information to increase public and political awareness of its necessity for decision making, resource allocation, and importance in improving quality of life.

Currently, approximately 70% of the 240,000 reported crashes that occur within North Carolina each year can be mileposted and thereby referenced back to our road inventory. Through the efforts of the TRCC this entire system will continue to be improved upon and provide valuable information for identifying and evaluating safety issues within our state. A complete copy of the NC TRCC Plan is included in the appendices of this plan.

Data Driven Business Decisions

Once the Committee adopted the AASHTO SHSP as its working guide, the next task was to decide which key emphasis areas needed to be addressed first. A key initial decision made by the Committee was to make sure that their actions were data and/or information driven. The Committee wanted to ensure that resources were not misdirected to issues that were only perceived to be problem areas. At the request of the ECHS, The Traffic Safety Unit of the Department of Transportation performed analyses on each of the 22 key emphasis areas (where applicable) using North Carolina crash data. North Carolina crash data was not readily available for key emphasis areas 7, 13, 14, 21 and 22.

Data Highlights

1. Young Drivers

- 16-20 years of age
- Comprise 40% of all crashes
- Comprise 21% of all fatalities
- Comprise 32% of all injuries

2. Ensuring Drivers Are Licensed

- 24% of drivers involved in fatal crashes were unlicensed

3. Older Drivers

- 65 years of age and older
- Comprise 19% of all crashes
- Comprise 19% of all fatalities
- Comprise 14% of all injuries

4. Curbing Aggressive Driving

Contributing Circumstance	% of Statewide	
	Fatalities	Injuries
Disregarded Traffic Control Device	8.6%	9.8%
Speed Involved Crash	39.8%	15.7%
Improper Lane Change	1.0%	2.0%
Passing Crashes	1.4%	1.1%
Followed Too Closely	0.3%	3.6%
Operated vehicle in erratic, reckless, careless, negligent or aggressive manner	16.3%	6.4%
All Above Circumstances	55.2%	34.9%

5. Reducing Impaired Driving

Year	Number of Crashes	All		Percent of Statewide		
		Fatals	Injuries	Crashes	Fatals	Injuries
2000	13,613	465	12,053	6.2%	29.8%	8.5%
2001	14,183	374	11,712	6.5%	24.4%	8.7%
2002	12,290	384	10,766	5.5%	24.4%	8.1%
Avg.	13,362	408	11,510	6.1%	26.2%	8.4%

6. Keeping Drivers Alert

Where Driver condition noted as other than “Normal”

- 5% of all crashes
- 33% of all fatal crashes
- 7% of injury crashes

8. Increasing Safety Belt Usage

2003 Data	Total	Unbelted	Unbelted %
Drivers Killed:	913	380	(42%)
Passengers Killed (front seat):	224	102	(46%)
Passengers Killed (back seat):	164	72	(44%)
Total Vehicle Occupants:	1,301	554	(43%)

9. Pedestrian Safety

- 11% of all fatalities are pedestrians
- N.C. ranked 10th in nation in pedestrian fatalities each year between 1999 and 2001

10. Bicycle Safety

- N.C. ranked 8th or higher in the nation in bicycle fatalities between 1999 and 2001

11. Motorcycle Safety

- Fatalities are on the increase
- Top 15 counties in N.C. account for 49% of all motorcycle relate fatalities
- Motorcycles only account for 1.3% of all registered vehicles, but 7% of all fatalities

12. Making Truck Travel Safer

2000-2002 CMV Crashes

Year	Crashes			% of Statewide	
	Total	Fatal	Injuries	Fatalities	Injuries
2000	8,046	151	4,388	9.7%	3.1%
2001	6,981	156	3,756	10.2%	2.8%
2002	7,258	136	3,897	8.6%	2.9%

15. Keeping Vehicles on the Roadway

2000-2002 Run Off Road Crashes

Year	Crashes			People		% of Statewide	
	Total	Fatal	Injuries	Fatalities	Injuries	Fatalities	Injuries
2000	52,585	855	26,133	960	38,770	61.6%	27.4%
2001	49,955	868	25,238	986	37,588	64.3%	28.0%
2002	55,081	909	26,697	1,014	39,912	64.3%	29.9%

16. Minimizing the Consequences of Leaving the Road

2000-2002 Hit Fixed Object Crashes

Year	Crashes			People		% of Statewide	
	Total	Fatal	Injuries	Fatalities	Injuries	Fatalities	Injuries
2000	42,185	640	20,506	706	30,007	45.3%	21.2%
2001	39,923	638	19,681	725	28,498	47.3%	21.2%
2002	44,812	704	21,018	777	30,470	49.3%	22.9%

17. Intersection Safety

2000-2002 Intersection Crashes

Year	Crashes			People		% of Statewide	
	Total	Fatal	Injuries	Fatalities	Injuries	Fatalities	Injuries
2000	57,237	296	26,341	328	46,616	21.0%	33.0%
2001	60,938	292	27,399	325	47,755	21.2%	35.6%
2002	61,014	285	26,700	317	46,682	20.1%	35.0%

18. Reducing Head On and Across Median Crashes

2000-2002 Head On Crashes

Year	Crashes			People		% of Statewide	
	Total	Fatal	Injuries	Fatalities	Injuries	Fatalities	Injuries
2000	5,371	213	3,348	255	7,490	16.4%	5.3%
2001	4,712	187	3,000	235	6,742	15.3%	5.0%
2002	4,708	168	2,946	203	6,399	12.9%	4.8%

1999-2002 Across Median Crashes

Fatal Crashes	All Crashes	Predicted	Actual	Fatal Crashes Saved
1999	178.0	30.4	24.0	6.4
2000	191.0	32.7	23.0	9.7
2001	160.0	27.4	7.0	20.4
Through July 2002	79.0	13.5	7.0	6.5
				43.0
Fatalities	All Crashes	Predicted	Actual	Fatalities Saved
1999	207.0	44.2	30.0	14.2
2000	226.0	48.3	36.0	12.3
2001	183.0	39.1	11.0	28.1
Through July 2002	94.0	20.1	8.0	12.1
				66.7

19. Designing Safer Work Zones

2000-2002 Work Zone Crashes

Year	Crashes	Fatal	Injury	% of Statewide	
				Fatalities	Injuries
2000	3,394	33	2,345	2.1%	1.7%
2001	3,957	35	2,706	2.3%	2.0%
2002	4,552	39	2,975	2.5%	2.2%

20. Enhancing EMS Capabilities

2000-2002 Utilization of EMS Services

Year	Fatal			A Injuries			B Injuries			C Injuries			PDO		
	Total	Used EMS	%	Total	Used EMS	%	Total	Used EMS	%	Total	Used EMS	%	Total	Used EMS	%
2000	1,449	1,234	85%	4,697	3,825	81%	23,830	15,898	67%	61,482	23,109	38%	174,523	2,296	1%
2001	1,393	1,226	88%	3,612	3,022	84%	22,004	15,005	68%	60,576	23,686	39%	171,155	2,144	1%
2002	1,467	1,227	84%	3,412	2,882	84%	21,613	15,403	71%	60,532	25,310	42%	182,702	2,753	2%

Once the analyses were completed, the results were presented to the committee members and each member was asked to discuss the data with their staff and rank their top five priorities. After the individual member rankings were completed, they were weighted and compiled and a composite prioritized list was developed and approved by the Committee.

FINAL SCORES/RANKINGS			
Final Ranking	Item #	Key Emphasis Area	Total Score
1	15	Keeping Vehicles on the Roadway	85
2	2	Ensuring Drivers are Licensed and Fully Competent	88
3	4	Curbing Aggressive Driving	92
4	8	Increasing Seat Belt Usage and Improving Airbag Effectiveness	92
5	5	Reducing Impaired Driving	93
6	16	Minimizing the Consequences of Leaving the Road	94
7	17	Improving the Design and Operation of Highway Intersections	96
8	18	Reducing Head-On and Across Median Crashes	101
9	7	Increasing Driver Safety Awareness	102
10	12	Making Truck Travel Safer	105
11	19	Designing Safer Work Zones	106
12	6	Keeping Drivers Alert	107
13	11	Improving Motorcycle Safety and Increasing Motorcycle Awareness	107
14	3	Sustaining Proficiency in Older Drivers	110
15	9	Making Walking and Street Crossing Safer	110
16	10	Ensuring Safer Bicycle Travel	112
17	1	Instituting Graduated Licensing for Young Drivers	113
18	14	Reducing Vehicle-Train Crashes	114
19	20	Enhancing Emergency Medical Capabilities to Increase Survivability	114

Due to many factors, primarily resources, the Committee members decided that it would not be feasible to address all key emphasis areas at once and that the initial focus should be concentrated on three to five areas. The ranked list was utilized to determine which areas would be investigated first. After reviewing the list and prior to selecting the initial areas of focus, several key decisions were made.

First, the Committee grouped AASHTO SHSP key emphasis areas #15 - Keeping Vehicles on the Roadway, #16 – Minimizing the Consequences of Leaving the Road and #18 -Reducing Head-On and Across Median Crashes into one collective group called “Lane Departure Crashes.”

Next a Speed Working Group was established. Since speed was a contributing factor in so many of the various emphasis areas, the decision was made to have a dedicated working group for this issue. This would allow the issue of speed to be addressed as a whole instead of in pieces through the work of several different working groups.

For emphasis area #8 - Increasing Seat Belt Usage, it was decided to remove the “Improving Airbag Effectiveness” portion from this item since at the state level, we have little to no impact on this. It was also discussed that while the “Click It or Ticket” campaign has been highly successful in our state, that there may need to be a change in or an additional emphasis placed on this, since NC’s belt usage rate seems to have leveled off over the past several years and many of our fatalities and injuries still involved unrestrained occupants.

For emphasis area #5 - Reducing Impaired Driving, it was noted that the Governor’s Task Force on DWI was being formed and therefore the Committee should follow the lead of and support the efforts of this group.

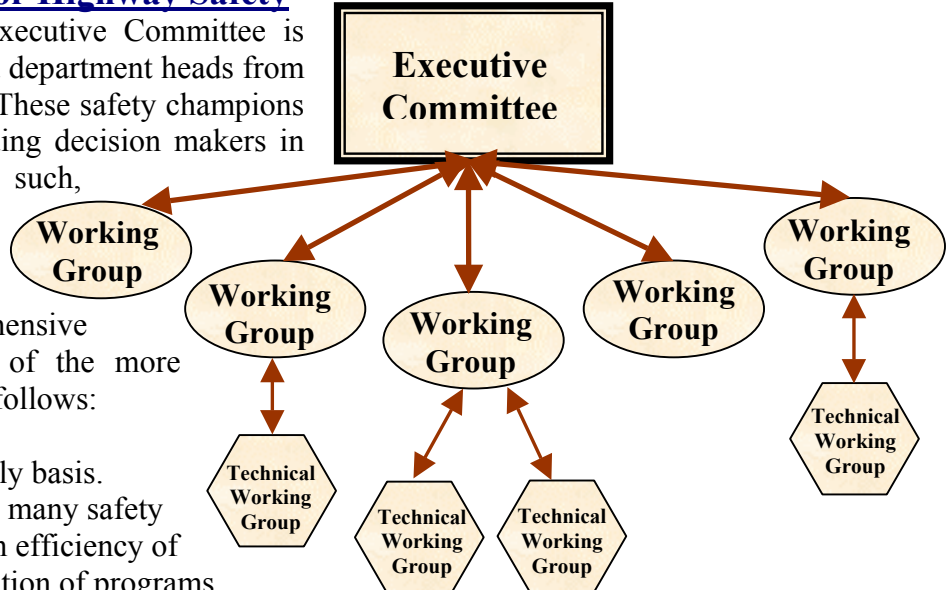
At the conclusion of the third meeting of the Executive Committee in January 2004, the initial six areas of focus (*1. Lane Departure, 2. Ensuring Drivers are Fully Licensed, 3. Curbing Aggressive*

Driving, 4. Increasing Safety Belt Use 5. Keeping Drivers Alert and 6. Speed) had been decided and were assigned to individual Working Groups.

The Executive Committee for Highway Safety

As previously mentioned, the Executive Committee is comprised of top level agency and department heads from various state and local agencies. These safety champions are key policy and business funding decision makers in the highway safety arena. As such, many of the primary duties of the Committee are centered on administering, managing and guiding North Carolina's comprehensive highway safety efforts. Some of the more essential Committee duties are as follows:

- ◆ Meet formally on a quarterly basis.
- ◆ Coordination of the State's many safety efforts with an emphasis on efficiency of resources and the prioritization of programs.
- ◆ Create mechanisms to foster multidisciplinary flows of communication.
- ◆ Identify, prioritize, promote and support all emphasis areas in the AASHTO Plan as well as emphasis areas not included in the AASHTO Strategic Highway Safety Plan (SHSP) for the coordinated highway safety effort to save lives and reduce injuries.
- ◆ Monitor and manage the operations of North Carolina's Strategic Highway Safety Plan.
- ◆ Responsible for the overall direction and administration of all SHSP activities.
- ◆ Responsible for defining high priority issues.
- ◆ Establish statewide highway safety goals and objectives.
- ◆ Establish innovative highway safety programs and activities.
- ◆ Review and approve all actions submitted by the Working Groups and ensure that the approved strategies are assigned to the correct "host" agency for implementation.
- ◆ Provide the necessary support (resources, policy, legislation, etc.) needed for full implementation of approved strategies.
- ◆ Review and propose recommended highway safety legislation.
- ◆ Collect, analyze, and distribute information related to highway safety.



Working Groups

Once key emphasis areas are determined, the ECHS assigns each selected key emphasis area to a different working group. The working groups are comprised of individuals from various areas of expertise deemed relevant to addressing the assigned issue, similar to the composition of the Committee itself. In general, working groups consist of representatives from state, federal and local agencies as well as selected interest groups where applicable. Most of the actual work, at the technical level, in terms of the NC SHSP is conducted within these groups. Participants within these work groups are responsible for defining safety issues and proposing solutions in the form of strategies back to the Committee for approval and implementation. Working groups establish their own meeting frequency based upon the consensus of the group, their goals and objectives. Once a working group is formed, it continues to meet until, at the decision of the group and subsequent approval of the Executive committee, it is no longer warranted. A working group may cease functioning for several reasons: 1) It exhausts all viable countermeasures, 2) Other efforts are

started that are over lapping in nature or 3) It needs time for suggested strategies to be implemented and have an effect on the target crashes to determine future courses of action.

In an effort to assist the working groups in accomplishing their objectives, each working group has the ability to create one or more technical working groups that operate and function under the guidance of the core working group. Working groups may have one or more technical working groups or none at all, depending on the nature and complexity of the assigned emphasis area. When a technical working group is established, it is formed in the same manner as a working group and operates like a working group. The main exception is that the technical working group reports directly to the core working group and not the Executive Committee.

As of August 2006, there are fourteen different working groups under the guidance of the ECHS. These are as follows:

- ◆ Lane Departure
- ◆ Ensuring Drivers are Fully Licensed
- ◆ Curbing Aggressive Driving
- ◆ Increasing Safety Belt Usage
- ◆ Keeping Drivers Alert
- ◆ Speed
- ◆ Intersection Safety
- ◆ Motorcycle Safety
- ◆ Older Drivers
- ◆ Commercial Motor Vehicles
- ◆ Public Information
- ◆ Bicycle and Pedestrian Safety
- ◆ Incident Management
- ◆ Driver's Education

SHSP Process Flow

The flow of the NC SHSP generally follows the following format.

1. **Issue Identification** – The Executive Committee identifies key safety issues and prioritizes the issues based upon discussions with staff from each of their respective agencies. Issues to be addressed may come from the key emphasis areas of the AASHTO SHSP (and NC's Working Plan) or they may be ad hoc issues that are not specifically addressed in the AASHTO plan.
2. **Create Working Group** – Once the Executive Committee has chosen an issue to move forward with, a Working Group is established to thoroughly analyze the selected issues. Working groups are assembled from staff from the agencies represented on the Executive Committee as well as others who can offer expertise on the particular topic. Generally, the intent is to keep the working groups smaller in size to foster the work flow with the understanding that technical working groups can be created as needed for additional support and expertise.
3. **Analyze the Issue** – Once the working group has been developed and a chair person selected, the group begins to research and analyze the assigned issue to determine what the problems are, the challenges and finally the potential countermeasures.
4. **Develop Strategy(s)** – Once the working group has begun their analysis of the issue, the next step is to begin developing strategies to address the identified issues. These strategies are documented and include information such as who the target audience is, the expected

effectiveness, keys to success, potential difficulties to implementation, appropriate measures and data, associated needs, organizational/policy issues, issues affecting implementation, costs, training and legislative issues. Once the strategy has been developed and documented, it is submitted to the Executive Committee for consideration and approval. Working groups are limited to submitting one strategy per quarter for review by the Committee.

5. **ECHS Reviews Strategy** – Upon receiving a strategy for review, the Executive Committee can take one of three actions: 1) They can approve the strategy as submitted and then forward it to an appropriate host agency, 2) They can send the strategy back to the working group for more details, clarification or other revisions based upon discussion and comments from the Committee or 3) They can “table” the strategy for a number of reasons until a future time when conditions are more favorable to move forward with implementing the strategy.
6. **Strategy Sent to Host Agency** – Once a strategy is approved by the Committee, it is forwarded to a “host” agency to be implemented. Typically the host agency is where the issue would normally reside. For example, an issue concerning driver licensing would be sent to the Division of Motor Vehicles since they handle all drivers license issues. The role of the host agency is to see that the strategy is implemented. The host agency has the support of the Executive Committee along with the sponsoring working group in getting the strategy implemented.

CURRENT EMPHASIS AREAS

The following section of this Implementation and Progress Guide will be dynamic and will expand as North Carolina advances with the efforts of the Executive Committee for Highway Safety and the Strategic Highway Safety Plan. Listed below is a brief overview of each key emphasis area currently being addressed by the Committee, some general statistical information and a list of current strategies with a brief description and status for each one. The full strategy can be found on the Executive Committee for Highway Safety web site at:
<http://www.ncdot.org/doh/preconstruct/traffic/echs/>.

It should be noted that while the Executive Committee placed a high emphasis on reducing impaired driving, in 2003, the Governor appointed a task force to analyze driving while impaired in North Carolina and to make specific recommendations on this issue. Therefore, the Committee made the decision to follow and support the Governor’s task force on this issue.

For more information regarding the final report of the Governor’s DWI Task Force, please refer to Appendix D.

Lane Departure

IN GENERAL

As previously mentioned, the Committee organized several of the AASHTO key emphasis areas into a collective group under Lane Departure Crashes. For our purposes, this includes the crash types of Ran Off Road – Left, Ran Off Road – Right, Ran Off Road – Straight, Overturn/Rollover, Fixed Object, Head On and Sideswipe - Opposite Direction. The Lane Departure working group was one of the initially formed groups and held its first meeting in April 2004.

THE PROBLEM

In North Carolina, lane departure crashes account for a significant portion of the total crashes, fatalities and injuries on our highways each year. Two primary challenges in this emphasis area include finding ways to keep vehicles on the road and in their lane (positive guidance) and minimizing the consequences when they do leave the road (forgiving roadside).

DATA HIGHLIGHTS

- ◆ 23% of all crashes are lane departure
- ◆ 55% of all fatalities are lane departure
- ◆ 66% of all lane departure fatalities involve only one vehicle
- ◆ 79% of lane departure fatalities occur on 2 lane roads

STRATEGIES APPROVED BY THE ECHS:

Strategy:	Rumble Strips to Reduce Lane Departure Crashes
Description:	Increasing the utilization of rumble strips as an effective countermeasure to reducing the number of run-off-road type collisions.
Group Lead	Roger Thomas, NCDOT – Highway Design
ECHS Approval:	July 21, 2004
Host Agency:	NC Department of Transportation
Agency Contact:	Debbie Barbour, NCDOT - Preconstruction
Notes:	In an aggressive effort to reduce the number of ROR crashes, the Department has revised their guidelines to place rumble strips on all median divided Interstates, Freeways and Expressways where access is limited to at grade intersections. The placement of rumble strips shall also be considered for other types of roadway facilities where there is a documented history of lane departure type crashes. Rural median divided roadways with partial control of access will be considered on a case by case basis. The revised guidelines also propose to move the placement of rumble strips to 6" off the edge of travel lane. The revised policy allows for rumble strips to be incorporated into new TIP and 3R/4R resurfacing projects.
Status:	Actively being implemented – The Department has programmed over \$8 million in rumble strip projects.
Evaluation:	Awaiting sufficient data

Strategy:	Provide Roadway Design & Geometric Enhancements
Description:	This strategy includes improvements to the roadway cross-section, which will reduce the likelihood of lane departure crashes, primarily by helping to keep the vehicle on the roadway.
Group Lead	Roger Thomas, NCDOT – Highway Design Branch
ECHS Approval:	October 20, 2004
Host Agency:	NC Department of Transportation
Agency Contact:	Steve Varnedoe, NCDOT - Operations
Notes:	This strategy will be incorporated into the practices and policy of the construction and maintenance programs within the Department. It will be an enhancement to existing programs and not an additional program to be administered.
Status:	Active
Evaluation:	Awaiting sufficient data

Strategy:	TARGET ENFORCEMENT TO DETER BEHAVIORS CONTRIBUTING TO LANE DEPARTURE CRASHES
Description:	Upon analyses of lane departure related crashes, there are three primary factors often involved: 1) Speed, 2) Alcohol and 3) Unbelted occupants. This strategy focuses on encouraging law enforcement agencies and officers to identify and then to concentrate enforcement efforts on problem areas and peak times within their jurisdiction. The intent is to target locations rather than individual drivers.
Group Lead	Sargent Tim Hartsell, Concord Police Department
ECHS Approval:	July 21, 2004
Host Agency:	NC Department of Transportation – Governor’s Highway Safety Program
Agency Contact:	Darrell Jernigan, NCDOT - GHSP
Notes:	The Governor’s Highway Safety Program (GHSP) will be initiating a campaign focused on the issue of speeding called “No Need 2 Speed”. This strategy will be combined with the GHSP initiative to evaluate the short, intermediate and long range effects of enforcement activities on speeding. Depending on the outcome, the results may be utilized as the basis for future strategies.
Status:	Complete
Evaluation:	Evaluation in progress.

STRATEGIES UNDER DISCUSSION (IN DRAFT MODE):

Strategy:	Implementation of “The Safety Edge”
Description:	Research has shown that vertical pavement edge drop-offs of three inches or more can contribute to vehicular loss of control, leading to a possible subsequent crash. This strategy addresses the unsafe pavement edge issue by the adoption of a standard contract specification requiring an asphalt fillet, “Safety Edge” of no more than a 45 % angle along each side of the roadway in all paving projects on state system roadways in North Carolina.
Group Lead	Bucky Galloway - NCDOT
ECHS Approval:	N/A
Host Agency:	N/A
Agency Contact:	N/A
Notes:	
Status:	NCDOT is in the process of developing a pilot project to work with field personnel to address concerns in regards to the constructability of the safety edge. A \$10,000 grant has been obtained to purchase the equipment and for training cost. Once the pilot project is completed and evaluated, based upon a positive evaluation, this strategy will be submitted to the Executive Committee

Strategy:	Driver's Education
Description:	North Carolina spends in excess of \$30 million each year on driver's education. The present NC general statutes that govern the curriculum of the Driver's Education program are dated and need to be revised. There is also a need to review the content of the curriculum, who is accountable and other key issues. A decision has been made to thoroughly investigate the current initiatives to determine if the end product can be improved to reduce the number of collisions involving young drivers.
Group Lead	N/A
ECHS Approval:	N/A
Host Agency:	N/A
Agency Contact:	N/A
Notes:	This is a joint effort between several of the working groups; Lane Departure, Keeping Drivers Alert and Speed.
Status:	Due to the complexity of this issue, this topic has been assigned to a separate working group that will address the issue of Driver's Education.

Strategy:	Evaluation of Advanced Driving Schools
Description:	There are several advanced driving schools offered in North Carolina to provide drivers with additional experience behind the wheel. These typically are targeted towards young (teens) and therefore inexperienced drivers to teach them how to handle emergency situations (i.e. how to properly correct when the vehicle runs off the edge of the road).
Group Lead	Cliff Braam - NCDOT
ECHS Approval:	N/A
Host Agency:	N/A
Agency Contact:	N/A
Notes:	N/A
Status:	In draft mode – On hold pending future discussions.

Ensuring Drivers Are Fully Licensed

IN GENERAL

This emphasis area includes suspended, revoked and unlicensed drivers. Unlicensed drivers include individuals who have never obtained a license and those who do not currently have one. The Unlicensed Drivers working group was one of the initially formed groups and held its first meeting in May 2004.

THE PROBLEM

Unlicensed drivers continue to pose a significant threat to highway safety within North Carolina. With society becoming more dependant each day on having viable transportation, this will be a difficult issue to get under control. To put this issue in perspective, the Raleigh Police Department (N.C.'s capital city) issues over 500 citations a month to suspended, revoked or unlicensed drivers.

DATA HIGHLIGHTS

- ◆ 24% of all fatalities involve an unlicensed driver
- ◆ Approximately 75% of unlicensed drivers continue to operate a motor vehicle

STRATEGIES APPROVED BY THE ECHS:

Strategy:	More Accurate Identification of Revoked Drivers
Description:	One problem with reducing the number of Driving While License Revoked (DWLR) offenders is the initial identification of these offenders by law enforcement officers (LEO). Law enforcement depends on the Division of Motor Vehicles (DMV) data to provide information regarding a subject's license status. This strategy will modify the computer information systems used by LEOs to greatly facilitate the identification of DWLR offenders.
Group Lead	Sargent Tim Tomczak - Raleigh Police Department
ECHS Approval:	January 26, 2005
Host Agency:	NC Department of Transportation – Division of Motor Vehicles
Agency Contact:	Commissioner George Tatum, NCDOT - DMV
Notes:	
Status:	In Progress
Evaluation:	Awaiting sufficient data

Strategy:	Temporary Impoundment of Offender's Vehicle to Deter Repeated Violations of Driving While License Revoked (DWLR)
Description:	<p>A recurring problem with Driving While License Revoked (DWLR) charges is the fact that simply removing a person's privilege to drive does not ensure that an individual will not drive. As many revocations are the result of Driving While Impaired charges or an accumulation of points due to poor driving, it is especially important to ensure that revoked drivers do not operate vehicles on the roads of North Carolina.</p> <p>When implemented, this strategy will result in a 48 hour impoundment of the vehicle for anyone who is caught DWLR.</p>
Group Lead	Sargent Tim Tomczak, Raleigh Police Department
ECHS Approval:	October 20, 2004
Host Agency:	NC Department of Transportation – Division of Motor Vehicles
Agency Contact:	Commissioner George Tatum, NCDOT - DMV
Notes:	This strategy targets all individuals who drive while suspended, revoked or unlicensed.
Status:	In Progress – Legislation needed
Evaluation:	Awaiting sufficient data

STRATEGIES UNDER DISCUSSION (IN DRAFT MODE):

Strategy:	Tougher Punishment for Repeat Offenders: Habitual Revoked Driving
Description:	One of the most frustrating aspects of charging someone with Driving While License Revoked (DWLR) is that they usually continue to drive, uncaring that the State has suspended their privilege to operate a vehicle. Even if someone is convicted of DWLR ten times, the harshest punishment they could receive is Permanent Revocation (which really is not all that "permanent" if you carefully read the law), conviction of a Class 1 Misdemeanor, and possibly 120 days in jail and a fine. The reality of the situation is that judges rarely impose active time for DWLR offenses. This strategy will seek tougher punishment as a means of deterring individuals from driving without a license.
Group Lead	Rob Foss – UNC Highway Safety Research Center
ECHS Approval:	N/A
Host Agency:	N/A
Agency Contact:	N/A
Notes:	
Status:	In draft mode – Work Group discussion are continuing.

Strategy:	Impoundment of Vehicle License Plates
Description:	Strategies targeting unlicensed drivers should examine ways to 1) Increase the penalties for driving without a license, 2) Make it more difficult or more of an inconvenience to do so and 3) Make it easier for law enforcement officers to identify vehicles of revoked individuals. This strategy will accomplish all three by impounding the license plates of a vehicle for individuals found driving without being licensed, increase penalties and fees associated with driving unlicensed and provide specially marked plates for these vehicles so that members of the family can drive the vehicle while making it easily recognizable to law enforcement.
Group Lead	Cliff Braam - NCDOT
ECHS Approval:	N/A
Host Agency:	N/A
Agency Contact:	N/A
Notes:	This strategy will only be applied to individuals who continue to drive while suspended, revoked or unlicensed due to repeated DWI convictions.
Status:	In draft mode; submitted to the ECHS on July 27, 2005. Committee asked for revisions to the strategy.

Curbing Aggressive Driving

IN GENERAL

This emphasis area targets drivers who drive aggressively on North Carolina's highways. The Curbing Aggressive Drivers working group was one of the initially formed groups and held its first meeting in May 2004.

During the initial efforts of this working group, one of the biggest challenges was to define aggressive driving. Aggressive Driving is something that everyone can easily recognize when you see it, but it is difficult to develop a definition that can be defined and validated in terms of crash and citation data.

In December 2004, the North Carolina General Assembly enacted House Bill 1046 – Aggressive Driving into law. This bill defines aggressive driving as anyone who is speeding and commits two or more of the following offenses: running a red light, running a stop sign, illegal passing, failure to yield the right of way or following too closely.

In light of the new law, the working group has been placed on an inactive status. It is anticipated that at some point in the future, this group may reconvene to evaluate the aggressive driving legislation and the effects that it has had on this problem in North Carolina.

Increasing Safety Belt Usage

IN GENERAL

This emphasis area will focus on ways to increase safety belt usage in North Carolina. The Increasing Safety Belt Usage working group was one of the initially formed groups and held its first meeting in May 2004.

THE PROBLEM

While N.C. has a safety belt compliance usage rate of 86%, this compliance applies only to front seat occupants. Even with such a high usage, the remaining 14% of those who do not use their safety belt have a large impact on overall fatalities.

DATA HIGHLIGHTS

- ◆ 43% (554) of vehicle occupant fatalities are ***unbelted***
- ◆ Unbelted occupants account for 68% of all lane departure related fatalities
- ◆ Unbelted occupants account for 70% of all speed related fatalities
- ◆ Unbelted occupants account for 74% of all drowsy/distracted fatalities

STRATEGIES APPROVED BY THE ECHS:

Strategy:	Eliminating Safety Belt Exemptions and Increasing Penalties for Non-Compliance
Description:	This strategy will strengthen existing safety belt laws in the state. The highlights include: 1) Mandating safety belt usage for all vehicles except those exempted by Federal Standards, 2) Mandating safety belt usage for all seating positions in a vehicle and 3) Increasing fines for non-compliance from \$25 per violation to \$50 per violation.
Group Lead	Darrell Jernigan, NCDOT – GHSP
ECHS Approval:	January 26, 2005
Host Agency:	Governor's Highway Safety Program, NCDOT
Agency Contact:	Darrell Jernigan
Notes:	Senate bill sponsored by Senator Purcell
Status:	Senate Bill 774; passed the Senate 45-4 on August 11, 2005. Bill passed the House in July 2006 and was signed into law by the Governor on July 19, 2006. This law becomes effective December 1, 2006. For details of the final bill see http://www.ncga.state.nc.us/gascripts/BillLookUp/BillLookUp.pl?Session=2005&BillID=s774
Evaluation:	Awaiting sufficient data

Keeping Drivers Alert

IN GENERAL

This emphasis area is currently focused on distracted and drowsy drivers. The Keeping Drivers Alert working group was one of the initially formed groups and held its first meeting in April 2004.

THE PROBLEM

Nationally, it is estimated that between 1.5 and 3 million crashes occur annually as a result of distracted drivers and N.C. is no exception when it comes to this crash cause. With increases in technology, busier schedules and more things to get done in shorter time frames, the automobile and our highways have become a venue for an alarming increase in distracted driver related crashes.

Some studies have shown that the risks of driving drowsy are the same as driving drunk. At greatest risk are young people aged 16-29, especially males who are five times more likely than females to be involved in drowsy-driving crashes.

DATA HIGHLIGHTS

- ◆ Drivers aged 16-20 are four times more likely than other age groups to be involved in a distracted driver crash.
- ◆ In 2002, NC drivers who were fatigued, fell asleep, fainted or lost consciousness accounted for 34 deaths, 1,791 injuries and 3,192 crashes.
- ◆ Because of how crash data is recorded, both distracted and drowsy driving are thought to be underreported causal factors in crashes.

STRATEGIES APPROVED BY THE ECHS:

Strategy:	Conduct Education and Awareness Campaigns to Increase Younger Drivers' Awareness of the Risks of Distracted Driving
Description:	This strategy focuses on educating young drivers and teens (ages 13-18) who are approaching the driving age of the risks involved with distracted driving. The intent is to target teens with a long-term, multi-faceted educational program to make them aware of the dangers involved in distracted driving and to eventually make it as socially unacceptable as drinking and driving
Group Lead	Joe Geigle, Federal Highway Administration
ECHS Approval:	January 26, 2005
Host Agency:	UNC Highway Safety Research Center and NCDOT Public Information Office
Agency Contact:	Doug Robertson – UNC HSRC and Jessica Jones – NCDOT PIO
Notes:	The working group has held 6 focus group meetings utilizing Governor's pages between the ages of 13-18 to discuss the issue of distractions and teen drivers. Each session engaged the teens in an hour-long discussion of distracted driving, teen driving behavior and appropriate messaging to reach a teen audience in a public relations campaign. Presently, the group is working with a public relations campaign class (Fall Semester 05) at the University of North Carolina at Chapel Hill. This class has adopted this strategy as their semester class project and will be developing appropriate campaigns to reach teen drivers to educate them about the dangers of distracted driving.
Status:	In progress.
Evaluation:	Awaiting sufficient data

Strategy:	DMV Handbook Revisions
Description:	This strategy focuses on making revisions to the present Driver's Handbook to include information on distracted and drowsy driving and the associated risk. As a part of this inclusion, test questions should also be added to the pool of potential question about these two issues.
Group Lead	Tom Crosby, AAA of the Carolinas
ECHS Approval:	February 8, 2006
Host Agency:	KDA Working Group
Agency Contact:	Tom Crosby
Notes:	
Status:	Dependent on the next revision and printing of the DMV Drivers Handbook. The KDA Working Group will take the lead on drafting the appropriate text and coordinating this with DMV. DMV will be able to update the electronic version of the Handbook available on line sooner than the print version.
Evaluation:	Awaiting sufficient data

Strategy:	Hotel Discounts for Drowsy Drivers
Description:	This strategy seeks to provide a respite hotel for drowsy drivers at discounted rates after a set time of night to encourage them to get a good night's rest rather than continue to drive while sleepy or tired.
Group Lead	Tom Crosby, AAA of the Carolinas
ECHS Approval:	October 24, 2006
Host Agency:	KDA Working Group
Agency Contact:	Tom Crosby
Notes:	
Status:	In progress – Discussions are on going with the hotel industry
Evaluation:	Awaiting sufficient data

STRATEGIES UNDER DISCUSSION (IN DRAFT MODE):

Strategy:	Conduct Education and Awareness Campaigns to Increase Drivers' Awareness of the Risks of Drowsy Driving
Description:	This strategy focuses on educating drivers (with an emphasis on ages 16-29) of the risks involved with drowsy driving. The intent is to target this group with a long-term, multi-faceted educational program to make them aware of the dangers involved in drowsy driving and to eventually make it as socially unacceptable as drinking and driving
Group Lead	Tom Crosby, AAA of the Carolinas
ECHS Approval:	N/A
Host Agency:	N/A
Agency Contact:	N/A
Notes:	
Status:	In draft mode – Work Group discussions are continuing.

Speed

IN GENERAL

When the initial crash data was analyzed for the various areas of the AASHTO Strategic Highway Safety Plan, one issue was consistently illustrated in most of the data that was reviewed: Speed. Since speed was such a prevalent factor in so many of the data areas, the Committee decided to make this a stand alone issue to be addressed. The Speed working group was one of the initially formed groups and held its first meeting in April 2004.

THE PROBLEM

Each year, speeding is a contributing factor in over 80,000+ crashes in North Carolina and a direct factor in more than 46% of all highway fatalities. Unfortunately, speeding is not readily viewed by the general public as a serious issue and certainly not one that can or likely will have a direct impact on their safety. There are many challenges associated with the speed issue from all aspects: engineering, enforcement and the judicial system.

DATA HIGHLIGHTS

- ◆ 39% of all crashes are speed related
- ◆ 46% of all fatalities are speed related
- ◆ 66% of all speed related fatalities are single vehicle crashes

STRATEGIES APPROVED BY THE ECHS:

Strategy:	SAFE SPEED ACT; ESTABLISHING UNIFORM SENTENCING FOR SPEEDING OFFENSES
Description:	“The Safe Speed Act”, will; 1) In essence make the process of adjudicating speed related citations more of an administrative one, thus having minimal impact on the courts, 2) Establish uniform sentencing of speeding offenses with set and non-negotiable penalties 3) Ensure that the severity of the penalties increases with severity and frequency of the violation, thus providing the necessary sanctions to discourage this behavior and 4) Eliminate plea bargaining by judicial officials and ensure uniform sentencing by judges.
Group Lead	Captain Dave Haggist, Charlotte Police Department
ECHS Approval:	October 20, 2004
Host Agency:	N/A
Agency Contact:	N/A
Notes:	
Status:	Group is doing more research on this. Legislation will be needed.
Evaluation:	Awaiting sufficient data

Strategy:	Monitoring Charlotte's Photo Enforcement Speed Program
Description:	<p>The Charlotte DOT and the Traffic Safety Advisory Committee (formed in 1999) are conducting a series of awareness campaigns and a photographic speed enforcement program to address the problems of speeding in the Charlotte metro area. In particular, the awareness campaign, called "Speed a Little, Lose a Lot," is aimed at young drivers aged 16-25 where fatalities in speed-related crashes are increasing. A photographic speed enforcement program, called "Safe Speed," is being run in conjunction with the awareness campaign.</p> <p>This recommendation is to monitor closely the measured effectiveness of these coordinated education and enforcement activities for possible expansion to other areas of North Carolina. The program is being evaluated by NC State and ITRE.</p>
Group Lead	Captain Dave Haggist; Charlotte Mecklenburg Police Department
ECHS Approval:	July 21, 2004
Host Agency:	Charlotte Mecklenburg Police Department
Agency Contact:	Captain Dave Haggist
Notes:	
Status:	In Progress
Evaluation:	Awaiting sufficient data

Strategy:	Compliance Dismissals – Provide for Recovery of Court Costs Associated with Dismissing Minor Traffic Violations
Description:	This system or "The Recovery of Costs for Compliance Dismissals' Act", would 1) Continue the process of dismissing minor traffic citations as an administrative one, thus having minimal impact on the courts, 2) Would provide for the recovery of costs associated with these violations and 3) By requiring violators to pay costs would help to discourage this behavior.
Group Lead	Ken Ivey – NCDOT – Traffic Engineering and Safety Systems Branch
ECHS Approval:	February 8, 2006
Host Agency:	Assigned back to the Speed Working Group.
Agency Contact:	N/A
Notes:	
Status:	House Bill 2771 was introduced in the house in May 2006 that will allow for the recovery of partial court cost in the sum of \$50.00 per instance.
Evaluation:	Awaiting sufficient data

STRATEGIES UNDER DISCUSSION (IN DRAFT MODE):

Strategy:	FEES TO INCREASE ENFORCEMENT CAPABILITIES OF LAW ENFORCEMENT WITH REGARD TO SPEEDING
Description:	This strategy focuses on providing resources to law enforcement to increase their presence on the highways and to write more citations for speeding. In specifically identified corridors, there would be an additional fee or fine assessed to anyone caught speeding. These additional fines would be utilized to fund law enforcement personnel (either additional personnel or overtime for existing officers) for the sole purpose of speed enforcement. In essence, only the violators would be paying for this program.
Group Lead	Gaines Weaver
ECHS Approval:	N/A
Host Agency:	N/A
Agency Contact:	N/A
Notes:	
Status:	In draft mode – Work Group discussion are continuing.

Strategy:	Targeted CMV Speed Enforcement as a Generalized Deterrent to Speeding Motorists
Description:	This strategy will focus on speed enforcement targeting commercial motor vehicles with two primary purposes: 1) slowing down speeding CMVs and 2) The spill over effect that should be present. It is understood that many motorists (especially on interstate facilities) take their cues as to the presence or absence of speed enforcement from what the ‘truckers’ are observed to be doing. The perception is that truckers communicate via CB radios and other devices to inform other truckers of the presence of speed traps. When drivers of passenger vehicles observe a sudden decrease in the speed of trucks, it is usually taken as an indication that speed enforcement is present. Conversely when truckers are exceeding posted speeds the drivers of other vehicles feel it is ‘safe’ to do so also (i.e., not likely to be ticketed). “So go the trucks, so go the other elements of the traffic stream.” The generalized benefit of slowing down the trucks is a concurrent reduction in the speed of other vehicles as well.
Group Lead	Ron Hughes
ECHS Approval:	N/A
Host Agency:	N/A
Agency Contact:	N/A
Notes:	
Status:	In draft mode – Work Group discussion are continuing.

Strategy:	Statewide Pace Car Program Spearheaded by State Employees
Description:	A Statewide Pace Car Program would recruit people to voluntarily travel within the posted speed limit on all roadways, beginning with State Employees. This is a way North Carolina residents can join together and set a good example for other drivers, especially younger drivers. The intent is for these drivers to act as pace cars by driving at the posted speed limit and limiting the opportunities for those behind them to drive in excess of the speed limit. Once there are enough Pace Car volunteers, the Pace Car Program Volunteers would actually be a mobile traffic calming system. North Carolina is the home of stock car racing and nearly everyone understands the concept and purpose of the pace car when it comes to racing. The basic principle of this program is that it clearly puts the accountability to drive responsibly on the motorists.
Group Lead	Haywood Daughtry, NCDOT – Traffic Safety Programs
ECHS Approval:	N/A
Host Agency:	N/A
Agency Contact:	N/A
Notes:	
Status:	In Draft Mode - Discussions are continuing.

Intersection Safety

IN GENERAL

The Intersection working group was recently added and held its first meeting in June 2005. The role of the Intersection Safety Working Group is to develop long term sustainable strategies to decrease intersection related crashes, fatalities and injuries at both signalized and unsignalized locations.

THE PROBLEM

Intersection related crashes account for a large percentage of all crashes within North Carolina. This working group will address crashes at both signalized and unsignalized intersections in an effort to improve highway safety at the many intersections within the State.

DATA HIGHLIGHTS

- ◆ 23% of all crashes in 2003 occurred at intersections
- ◆ 20% of all fatal crashes in 2003 occurred at intersections
- ◆ 39% of intersection related crashes were at signalized intersections

STRATEGIES UNDER DISCUSSION (IN DRAFT MODE):

Strategy:	Advance Street Name Plaques/Signage for Improved Driver Navigation
Description:	Provide street name signs in advance of select intersections to assist motorist with proper lane selection to avoid last minute, erratic maneuvers.
Group Lead	Tony Wyatt, NCDOT – Traffic Engineering
ECHS Approval:	
Host Agency:	
Agency Contact:	
Notes:	The intent of this strategy is to provide advance information at select locations that will help direct the motorist and re-assure the navigating motorist. Lane selection and maneuvers should take place in advance of an intersection thereby reducing vehicular conflicts and friction that often occurs when an operator fails to recognize they have reached their destination. The operator may then attempt a last second lane change or misses the turn entirely and then resorts to a more difficult legal or illegal recovery maneuver beyond the intersection. This strategy targets increasing safety for very inexperienced, distracted and less familiar drivers.
Status:	Presented to the ECHS at the February 8, 2006 meeting. Committee has concerns about widespread placement and cost and has asked the group to research further.
Evaluation:	Awaiting sufficient data

Strategy:	Enabling Automated Electronic Enforcement and or Monitoring at North Carolina Intersections
Description:	This strategy would allow use of automated enforcement/monitoring at intersection locations within North Carolina with a demonstrated need.
Group Lead	Tony Wyatt, NCDOT – Traffic Engineering
ECHS Approval:	
Host Agency:	
Agency Contact:	
Notes:	One critical tool that is missing from North Carolina's Overall Safety Toolbox is the Automated Electronic Enforcement and Monitoring capability. Individual Municipalities have passed enabling legislation to allow the use of Red Light Enforcement Cameras at intersections within those municipalities, however there is no such enabling authority for the State to utilize these automated enforcement and safety monitoring tools at the thousands of intersections outside municipal limits or within municipalities that have not yet been able to sponsor and pass enabling legislation.
Status:	Presented to the ECHS at the October 24, 2006 meeting. Committee has concerns about usage, placement and cost and has asked the group to research further.
Evaluation:	Awaiting sufficient data

Older Drivers

IN GENERAL

Since March 2004, there has been a Senior Driver Coalition within North Carolina that has been meeting to address older driver issues. In July 2005, the coalition was brought under the guidance of the Executive Committee to address highway safety issues as they pertain to the older driver (age 65 and over).

THE PROBLEM

Older drivers comprise a continually growing segment of licensed drivers in North Carolina. As a person ages, they experience declines in sensory, cognitive and/or physical abilities that often present them with unique challenges in safely operating a vehicle on the highways.

CHALLENGES

- ◆ Plan for an aging population
- ◆ Improve roadways and the driving environment to better accommodate older drivers
- ◆ Identify older drivers at risk of crashing and define strategies to intervene

STRATEGIES APPROVED BY THE ECHS:

Strategy:	Improve the Roadway and Driving Environment to Better Accommodate the Special Needs of Older Road Users: Building Capacity
Description:	Conduct one-day training workshop to transportation planners, engineers, and other practitioners through state DOTs and others (ITE chapters, LTAP, etc.), based on the <i>Highway Design Handbook for Older Drivers and Pedestrians</i> .
Group Lead	Jane Stutts – UNC Highway Safety Research Center
ECHS Approval:	January 16, 2007
Host Agency:	NCDOT
Agency Contact:	Ken Ivey
Notes:	
Status:	Workshops were held first quarter of 2007. It is the intent of the group to offer these workshops on a regular, reoccurring basis.
Evaluation:	N/A

Strategy:	Identify Hazardous Intersections and Improve Their Safety for Older Drivers
Description:	This strategy outlines a process by which intersection locations in the state that pose particular problems for older drivers will be identified, and changes recommended to improve their safety. The goal of the strategy is to reduce the number of older driver crashes at intersections while at the same time improving safety for all drivers.
Group Lead	Jane Stutts – UNC Highway Safety Research Center
ECHS Approval:	October 24, 2006
Host Agency:	NCDOT
Agency Contact:	Brian Mayhew
Notes:	
Status:	In progress
Evaluation:	N/A

Strategy:	Improve Signage at Non-Standard Interchange Approaches
Description:	One of the first challenges members of the NC Senior Driver Safety Coalition were called upon to address was a problem in knowing which lane to be in to access an Interstate or other limited access freeway. The problem arises when traveling on a multi-lane minor roadway where, depending on the interchange design (typically either a “diamond” or “cloverleaf”), a driver may need to position himself in the outside lane for a right-hand turn or the inside lane for a left-hand turn. The situation is exacerbated by non-standard interchange designs, and, of course, for drivers unfamiliar with a particular interchange (i.e., non-local travelers). Older drivers can find such interchanges especially challenging if required to maneuver their vehicle quickly into another lane for turning, and may even become confused and turn onto an exit ramp by mistake. At the very least, they become frustrated when they miss their turn and have to backtrack for a second approach.
Group Lead	Jane Stutts – UNC Highway Safety Research Center
ECHS Approval:	October 24, 2006
Host Agency:	NCDOT
Agency Contact:	Kevin Lacy
Notes:	Work has already been carried out by the Traffic Engineering and Safety Systems Branch, with input from senior members of the NC Senior Driver Safety Coalition, to develop improved signage and signage placement protocols to address this problem. The recommended signage has been approved by appropriate DOT staff and funds allocated to produce and install the signs at 10 locations over the coming months. This strategy would allow for continued pilot testing of the intervention and potential extension statewide.
Status:	In progress
Evaluation:	Awaiting sufficient data

Strategy:	Increase Public Awareness of Issues Affecting Older Drivers and Access to Resources for Maintaining Safe Mobility
Description:	This strategy would involve creating and marketing a web site for making important safety information and resources available to North Carolina’s growing population of older drivers. The strategy would draw upon the expertise of partners of the State’s Senior Driver Safety Coalition, including AARP, DHHS Division on Aging and Adult Services, DMV, AAA, NC Medical Society, and others
Group Lead	Jane Stutts – UNC Highway Safety Research Center
ECHS Approval:	January 16, 2007
Host Agency:	NC Division of Aging and Adult Services
Agency Contact:	Phyllis Bridgeman
Notes:	
Status:	In progress
Evaluation:	Awaiting sufficient data

STRATEGIES UNDER DISCUSSION (IN DRAFT MODE):

Strategy:	Train Physicians to Identify Drivers with Medical or Functional Limitations That Can Affect Their Driving Ability and Intervene to Lower Their Crash Risk
Description:	The objective of this strategy is to use the NC and AMA guides, along with other available resources, as a basis for developing a training curriculum for educating physicians and other health care professionals about the public health issue of older driver safety and train them in how to identify potentially at risk patients and effectively intervene to lower their crash risk.
Group Lead	Jane Stutts – UNC Highway Safety Research Center
ECHS Approval:	
Host Agency:	N/A
Agency Contact:	N/A
Notes:	N/A
Status:	
Evaluation:	In Draft Mode - Discussions are continuing.

Motorcycles

IN GENERAL

North Carolina has had an independent group actively pursuing motorcycle safety for the past several years. Since motorcycle safety is a growing concern in North Carolina, in July 2005, this group was brought under the guidance of the Executive Committee to address highway safety issues as they pertain to motorcycles.

THE PROBLEM

Motorcycle registration has increased by over 76% in the last ten years and along with this, North Carolina has experienced an increase in motorcycle related crashes, fatalities and injuries. Over this same time period, while motorcycle registration has accounted for only 1.3 % of all registered vehicles, motorcyclist have comprised over 5% of all fatalities.

DATA HIGHLIGHTS

- ◆ Motorcycle fatality rate is 4.5 times higher than other vehicles
- ◆ 9 out of 10 motorcyclists killed are male
- ◆ 50% of motorcycle fatalities are young (16-29) males
- ◆ 56% of motorcycle crashes, the motorcyclist was at fault

STRATEGIES APPROVED BY THE ECHS:

Strategy:	Tighten the Requirements for a Motorcycle Operators Permit to Insure Riders Are Demonstrating Rider Skills in Shorter Time Frame
Description:	Presently, there are no limits on how long a person can operate a motorcycle with a learner's permit. To obtain such a permit requires only the successful completion of a written test and no demonstration of rider skills. This strategy proposes that the permit system be revised to allow a one year non-renewable permit by taking the DMV written test if they have held a valid NC drivers license for two years or more. Individuals with less than two years valid drivers license will be required to successfully complete the NC Motorcycle Safety Education Program. Individuals less than 18 years of age would be required to take and successfully complete the NC Motorcycle Safety Education Program course.
Group Lead	John Stokes, GHSP
ECHS Approval:	April 25, 2006
Host Agency:	Governor's Highway Safety Program
Agency Contact:	John Stokes
Notes:	
Status:	Pending Legislation.
Evaluation:	Awaiting sufficient data

Strategy:	Clarifying the Current NC Mandatory Motorcycle Helmet Use Law to Increase Compliance of Legal Helmets
Description:	This strategy consists of a technical revision to G.S. 20-140.4 (2) that eliminates the phrase “of a type approved by the Commissioner of Motor Vehicles” and changes it to reflect that only helmets that meet Federal Motor Vehicle Safety Standard (FMVSS) Number 218 are approved for use in North Carolina.
Group Lead	John Stokes, GHSP
ECHS Approval:	April 25, 2006
Host Agency:	Governor’s Highway Safety Program
Agency Contact:	John Stokes
Notes:	
Status:	Pending Legislation.
Evaluation:	Awaiting sufficient data

Commercial Motor Vehicles

STRATEGIES APPROVED BY THE ECHS:

Strategy:	Mandatory Mud Splash Flaps on Commercial Motor Vehicles Operating on North Carolina Streets and Highways
Description:	This strategy would require all commercial motor vehicles to have mud flaps.
Group Lead	Tony Wyatt - NCDOT
ECHS Approval:	January 16, 2007
Host Agency:	TBD
Agency Contact:	TBD
Notes:	Implementation of this strategy would improve visibility to passing motorist during wet conditions as well as reduce the chance of flying debris from a CMV striking a passing motorist above fender level.
Status:	In progress
Evaluation:	Awaiting sufficient data

Strategy:	Mandatory Headlights on for all CMV During the Day
Description:	This strategy would require all commercial motor vehicles to burn headlights during day light hours.
Group Lead	Tony Wyatt - NCDOT
ECHS Approval:	January 16, 2007
Host Agency:	TBD
Agency Contact:	TBD
Notes:	
Status:	In progress
Evaluation:	Awaiting sufficient data

STRATEGIES UNDER DISCUSSION (IN DRAFT MODE):

Strategy:	Protecting North Carolina's On and Off Ramps and Primary Route Shoulders (No Parking – Emergency Maneuvers ONLY)
Description:	This Strategy is aimed at reclaiming and protecting North Carolina's interchange on and off ramps and ramp and mainline shoulders for emergency maneuvers/use only and not for convenience, rest stops, delivery complications, on route warehousing, or personal matters.
Group Lead	Tony Wyatt - NCDOT
ECHS Approval:	N/A
Host Agency:	N/A
Agency Contact:	N/A
Notes:	
Status:	N/A
Evaluation:	Awaiting sufficient data

Public Information

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IN GENERAL

There are a number of state and local agencies represented on the Executive Committee. Members of the Committee decided that it would be beneficial to have a working group comprised of the various public information offices of the various agencies represented on the Committee. Although this group will not be developing strategies to address a particular safety issue, there are two primary purposes of this group. First, to collectively share and act as a pool of resources for each

other. Often one agency may get media or other requests outside of their area of expertise. Now they will have a pool of resources available to help address any issues they may encounter. Secondly, when the Executive Committee has issues that need to be relayed to the public, dissemination of this information should be made easier with all represented agencies assisting in getting the message out.

Bicycle and Pedestrian Safety

STRATEGIES APPROVED BY THE ECHS:

Strategy:	DMV Drivers Handbook Revisions; Sharing the Road with Bicyclists and Pedestrians
Description:	This strategy focuses on making revisions to the present Driver's Handbook to include additional, specific information on laws, when to yield right of way, how to respect other road users' rights, and tips on the proper way for each mode to operate. As a part of this inclusion, test questions should also be added to the pool of potential question about these issues.
Group Lead	Mary Meletiou - ITRE
ECHS Approval:	October 24, 2006
Host Agency:	ITRE
Agency Contact:	Mary Meletiou
Notes:	
Status:	In progress
Evaluation:	Awaiting sufficient data

Strategy:	Training for Law Enforcement Officers on Bicycle and Pedestrian Laws and Local Law Enforcement Strategies to Improve Safety
Description:	This strategy focuses on raising the awareness of law enforcement officers, both to the existing statutes related to bicyclists and pedestrians and the availability of relevant materials. In addition, this project would encourage Chiefs of Police, Sheriffs and the Highway Patrol to take a proactive role in focusing enforcement efforts in these areas. By having knowledge about and enforcing relevant laws, law enforcement efforts can change behaviors in a community, thus making it safer to bicycle and walk.
Group Lead	Mary Meletiou - ITRE
ECHS Approval:	October 24, 2006
Host Agency:	ITRE
Agency Contact:	Mary Meletiou
Notes:	
Status:	In progress
Evaluation:	Awaiting sufficient data

STRATEGIES UNDER DISCUSSION (IN DRAFT MODE):

Strategy:	Stronger Penalties for Violation of School Crossing Guards Directions/Directives
Description:	This strategy will establish severe penalties for motorists who violate the “Stop” sign when displayed by a school crossing guard in an effort to increase motorist compliance with the directives of school crossing guards to increase safety to children crossing at these locations.
Group Lead	Mary Meletiou - ITRE
ECHS Approval:	N/A
Host Agency:	N/A
Agency Contact:	N/A
Notes:	
Status:	N/A
Evaluation:	Awaiting sufficient data

Incident Management

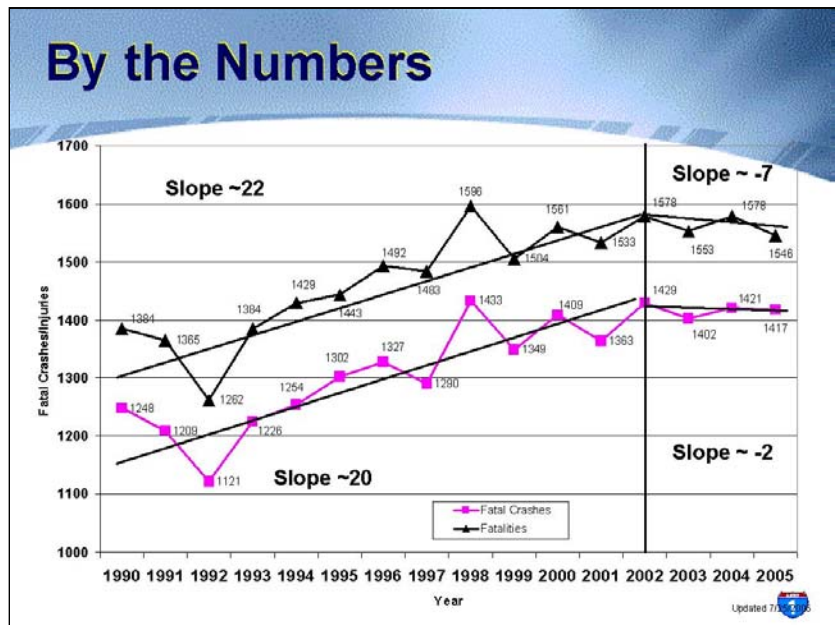
Newly formed working group – Data and information forthcoming.

Driver’s Education**STRATEGIES UNDER DISCUSSION (IN DRAFT MODE):**

Strategy:	Establishing a Central Governing Body for Driver Education in North Carolina
Description:	The intent of this strategy is to house the administration and oversight of all driver education activities under one agency in an effort to improve all facets of driver education and to ensure that the best possible program is being provided to new drivers in North Carolina.
Group Lead	Cliff Braam - NCDOT
ECHS Approval:	N/A
Host Agency:	N/A
Agency Contact:	N/A
Notes:	
Status:	N/A
Evaluation:	Awaiting sufficient data

SHSP RESULTS

In April 2006, North Carolina's Executive Committee for Highway Safety celebrated its third year of operation. During these three years, the successful development and implementation of North Carolina's Strategic Highway Safety Plan has already begun showing positive effects on the number of fatalities and fatal crashes in the state. The trend lines on both fatalities and fatal crashes have finally turned and we are beginning to push the numbers down. The Committee has reached many milestones and has successfully implemented many strategies developed by the various working groups. The Committee has grown during these three years from its initial six working groups to fourteen.



The remainder of the results section will provide a section for readers to readily learn about the success of developed and implemented strategies. As more information becomes available on each of these strategies, it is envisioned that this section will contain “media sheets” on these strategies that can be printed and distributed to interested parties. These media sheets will provide a summary of the strategy, its goals, benefits and other key information.

Compliance Dismissals

- **Compliance Dismissals – Provide for Recovery of Court Costs Associated with Dismissing Minor Traffic Violations**
 - ❖ House Bill 2771
 - ❖ Assessment of \$50 penalty for cases that are dismissed due to violator being in compliance
 - ❖ Expired license, expired inspection, no registration card, etc.
- **Why is this Important?**
 - ❖ In many Court Districts, these violations accounted for a large proportion of their cases
 - ❖ These violations consumed court resources at no cost to the violator
 - ❖ There is usually no question of guilt, motorists saw this as an inconvenience
 - ❖ We see it as a friendly reminder

Speed Enforcement

- **Target Enforcement to Deter Behaviors Contributing to Lane Departure Crashes**

- ❖ GHSP pilot program evaluating effectiveness of signing, media and additional enforcement on reducing speeding
- ❖ Being conducted in Robeson, Cumberland, Harnett and Johnston Counties
- ❖ Program is being evaluated by TESSB Safety Evaluation Group



Rumble Strips

- **Increase Usage of Rumble Strips to Reduce Lane Departure Crashes**
 - ❖ Increasing the utilization of rumble strips as an effective countermeasure to reducing run-off-road type collisions
 - ❖ DOT has revised current policy to allow for the more widespread use of rumble strips
 - ❖ DOT has programmed over \$8 million in rumble strip projects



Unlicensed Drivers

- **Temporary Impoundment of Offenders' Vehicles to Deter Repeated Violations of DWLR**
 - ❖ Immediate 48 hour impoundment of vehicle if caught driving without a valid license
 - ❖ Deemed as a temporary inconvenience with associated fines and towing/storage costs
 - ❖ Awaiting legislation



Young Drivers

- **Conduct Education and Awareness Campaigns to Increase Younger Drivers' Awareness of the Risks of Distracted Driving**
 - ❖ Educating young drivers and teens (ages 13-18) who are approaching the driving age of the risks involved with distracted driving
 - ❖ Awaiting approval of GHSP concept grant for funding
 - ❖ In 2006, the NC Legislature passed a ban on cell phone use for drivers under age 18



Motorcycle Permits

- **Tighten the Requirements for a Motorcycle Operators Permit to Ensure Riders Are Demonstrating Rider Skills in Shorter Time Frame**
 - ❖ Strategy proposes that the permit system be revised to allow a one year non-renewable permit by taking the DMV written test if they have held a valid NC drivers license for two years or more
 - ❖ Individuals with less than two years valid drivers license will be required to successfully complete the NC Motorcycle Safety Education Program
 - ❖ Individuals less than 18 years of age would be required to take and successfully complete the NC Motorcycle Safety Education Program course
 - ❖ Awaiting Legislation



Safety Belts

- **Increasing Safety Belt Usage**

- ❖ Senate Bill 774 requires all seating positions to be buckled
- ❖ \$25 fine plus \$50 court cost for front seat occupants
- ❖ \$10 fine and no court cost for rear seat occupants
- ❖ Becomes law December 1, 2006

- **R U Buckled?**

- ❖ Working with more than 50 high schools
- ❖ Penalty for not buckling up is loss of parking privilege at school



CONCLUSION

The North Carolina Executive Committee for Highway Safety has set an ambitious goal of reducing the State's current fatal rate to 1.0 fatalities/100 MVM traveled by the year 2008. For North Carolina to achieve this goal, we will have to reduce the number of people fatally injured on our highways by over 500. To put this in perspective, in 1945, there were 1,071 people killed in motor vehicle crashes and the fatal rate was 12.77 fatalities per 100 MVMT. That year, the estimated vehicle miles traveled statewide was 5.7 billion miles. In 2005, we travel 5.7 billion miles in roughly 3 weeks.

However, with the Strategic Highway Safety Plan that has been developed, along with the relationships developed among the key safety partners in the state, North Carolina is making significant strides towards achieving our goal.

Contact Information

For more information on how North Carolina is saving lives, visit:

[*http://www.ncdot.org/doh/preconstruct/traffic/echs/*](http://www.ncdot.org/doh/preconstruct/traffic/echs/)

or call/write to:

Cliff Braam, P.E., CPM
North Carolina Department of Transportation
122 N. McDowell Street
Raleigh, North Carolina 27611

919-733-5699

abraam@dot.state.nc.us

APPENDIX A

NORTH CAROLINA SAFETY EFFORTS

COMPREHENSIVE TRAFFIC SAFETY REVIEWS

The comprehensive traffic safety review (CTSR) is intended to provide a “big picture” of traffic safety issues for Comprehensive Transportation Plans (CTP) at the municipal or county level and to proactively introduce traffic safety into the long-range planning process. The CTSR process is still under development but will primarily include multiple analyses (motor vehicle, truck, bicycle, pedestrian, etc.) of five years of traffic crash data categorized from a number of different perspectives. The primary intended audience will be the targeted municipality or county, and secondary customers will consist of the NCDOT Transportation Planning Branch (TPB), the local Metropolitan or Rural Planning Organization (MPO or RPO), the Governor’s Highway Safety Program (GHSP), and NCDOT regional and division engineers. It is also expected that the TPB, the GHSP, the Executive Committee for Highway Safety (ECHS), and possibly the Board of Transportation’s (BOT) Safety and Emerging Issues Committee will play instrumental roles in the final development, sponsorship, and/or support of the CTSR process.

TRAFFIC SAFETY ANALYSIS

The traffic safety analysis (TSA) is a comprehensive traffic safety review of projects that are generally in the pre-scoping phase, and is designed to proactively introduce safety into the project development process. The TSA is a collection of roadway use driven analyses designed to make sure that the proposed project will address any current traffic safety issues, mitigate any potential future traffic safety issues, and assist with the Purpose and Need statement for the project. Different analyses are conducted per project depending on whether the project route is located on the National Highway System (NHS), the STAA vehicle network, the North Carolina Intrastate System, a North Carolina Strategic Highway Corridor (SHC), and/or evacuation (hurricane, nuclear, or flood), bicycle, pedestrian, and transit routes. The TSA process can also be used to assist as a framework for conducting Road Safety Audits (RSA).

Primary among the many items reviewed during the course of a TSA are roadway and bridge parameters, ordinances, at-grade railroad crossing information, signal plans, traffic counts and movements, school information, and current/proposed/future land uses for the project area (if available). Other studies and safety programs that may also affect the TSA include feasibility studies and other pre-planning documentation, spot safety improvements, the Highway Safety Improvement Program (HSIP), the Secondary Road Safety Program (SRSP), and the North Carolina Moving Ahead (NCMA) program.

SCHOOL SAFETY INITIATIVE

Due to recent requests to address student safety at area high schools, the Traffic Engineering and Safety Systems Branch (TESSB) has altered its internal processes in order to take a more proactive approach to addressing bicycle and pedestrian traffic safety issues around primary and secondary schools. The traffic congestion and traffic safety sections of the branch now work together to pool their resources and expertise in reviewing traffic safety related to students to address requests in a timely and efficient manner, even at locations where there are few, minor, or an absence of crashes. These safety initiatives primarily address non-motorist exposure, conflicts, accessibility, mobility, visibility, awareness, and behavior, but may address other school and traffic related issues depending on the location. Some of these student safety reviews involve a team approach that may also include additional NCDOT engineers and local stakeholders such as the school principal, local/municipal traffic engineers or officials, and law enforcement personnel.

ROAD SAFETY REVIEWS

NCDOT has begun performing Road Safety Reviews (RSR) primarily on two-lane urban or rural roadways that have higher than average severe injury and fatal crashes and/or crash rates.

Identification of these roads is being done by using a combination of Highway Safety Improvement Program warrants and State Highway Patrol information/data. A RSR is a formal safety performance review of an existing (or future) road or intersection by an independent multidiscipline audit team. RSRs can be utilized at any phase of project development from planning to construction to existing roads as well as on any size project from minor maintenance to a multi-million dollar transportation improvement project. The benefits of a RSR include; 1) helping produce designs or countermeasures that reduce the number and severity of crashes, 2) promoting awareness and implementation of safe design practices, 3) integrating multimodal safety concerns and 4) considering human factors in all facets of the design. RSR's are a low cost, proactive approach to improving highway safety that can help engineers develop a number of potential countermeasures to address safety on existing roads and to identify solutions that were not originally included in the planning or design of a project.

RUMBLE STRIPS

The old guidelines used by the North Carolina Department of Transportation specify that rumble strips should be placed on the following types of median divided roadways: Interstate Through Routes, Rural Freeway Segments, and Expressway Segments that are located in sparsely developed rural areas.

However, in an aggressive effort to reduce the number of run-off-road crashes, the Department has recently revised these guidelines to place rumble strips on all median divided Interstates, Freeways and Expressways where access is limited to at grade intersections. The placement of rumble strips shall also be considered for other types of roadway facilities where there is a documented history of lane departure type crashes. Rural median divided roadway with partial control of access will be considered on a case by case basis. The revised guidelines also propose to move the placement of rumble strips to 6" off the edge of travel lane.

The NCDOT has recently programmed over \$8 million in rumble strip projects and is currently reviewing all existing projects under construction for the addition of rumble strips where applicable.

NORTH CAROLINA MOVING AHEAD (NCMA)

A bold transportation initiative that, over two years, will result in nearly 30,000 new jobs and have a \$4 billion impact on North Carolina's economy. The program will also bring a new level of safety and mobility to the state's transportation network by attacking the state's most critical needs—maintenance, modernization and public transportation. The full program includes a list of 908 highway and bridge projects and will be funded with over \$700 million in Highway Trust Fund money. To be selected, projects must fulfill vital safety and highway preservation needs, such as pavement rehabilitation, road widening and bridge replacements. The NCMA initiative developed by NCDOT and approved by the General Assembly in 2003 is a 2 year program focusing on 2 lane roadways with more than 2000 ADT. Approximately 2200 miles will be improved by widening, resurfacing, constructing turn lanes and installing enhanced pavement markings. Corridor crash data was used as a screening tool for project selection. Post construction analysis should show a reduction in lane departure crashes along many of these routes.



HIGHWAY SAFETY IMPROVEMENT PROGRAM

The purpose of the North Carolina Highway Safety Improvement Program (HSIP) is to provide a continuous and systematic procedure that identifies and reviews specific traffic safety issues in the state and to determine potentially hazardous locations that are possibly deficient in these issues. The ultimate goal of the HSIP process is to reduce the number of traffic crashes, injuries, and

fatalities by reducing the potential for these incidents on public roadways. The Traffic Safety Systems Management Unit (TSSMU) and the Regional Traffic Engineering (RTE) staff continuously strive, through a collaborative effort, to improve the identification of relevant traffic safety issues, minimum warranting criteria, and the location selection process.

Presently, the HSIP identifies locations under four categories: 1) Intersections, 2) Sections, 3) Bridges and 4) Bicycle and Pedestrian. In the 2003 program;

- 1,950 potentially hazardous intersection locations,
- 318 potentially hazardous section locations,
- 113 potentially hazardous bridge locations,
- 67 potentially hazardous bicycle and pedestrian intersection locations and
- 192 potentially hazardous bicycle and pedestrian section locations were identified.

MEDIAN BARRIER

In 1998 North Carolina began a three pronged approach to prevent and reduce the severity of Across Median Crashes on freeways.

- Phase I - Add median protection to freeways with historical crash problems,
- Phase II - Systematically protect all freeways with median widths of 70 feet or less and
- Phase III - Revise Design Policy to protect all future freeways with median widths of 70 feet or less



The 2000 - 2006 Transportation Improvement Program (TIP) included 58 median barrier projects covering approximately 1000 miles of freeway at an initial cost of over \$120 million. As of spring 2004, all projects have been let or completed. Engineering analysis estimates that over the past five (5) years, these systems have prevented 59 fatal across median crashes resulting in 96 lives saved and a savings of over \$205 million in fatal crash costs alone.

BOOZE IT AND LOOSE IT

The "Booze It & Lose It" campaign zeros in on drunken drivers with the most innovative and extensive anti-driving while impaired (DWI) enforcement and education effort in state history.



Sobriety checkpoints are continually set up in all North Carolina counties as part of the state's highly effective anti-drunk driving campaign.

As part of the "Booze It & Lose It" campaign, law enforcement officers conduct sobriety checkpoints in all 100 counties of the state. Since the start of the Governor's Highway Safety Initiative in 1993, law officers have conducted more than 26,000 checkpoints for seat belts and impaired driving and charged more than 44,000 people with driving while impaired (DWI), resulting in a 22% decrease in alcohol related fatalities.

CLICK IT OR TICKET

If you live in North Carolina, chances are you've heard of "Click It or Ticket" from the public service ads or even riding through a safety belt checkpoint. North Carolinians take highway safety, and wearing their safety belts seriously. The program has boosted safety belt use to as much as 86 percent giving the state one of the top percentages of safety belt use in the United States. North Carolinians are proud that they're



leading the way.

Former Governor Jim Hunt launched North Carolina's "Click It or Ticket" program in 1993 to increase safety belt and child safety use rates through stepped-up enforcement of the state's safety belt law. Nearly every law enforcement agency in the state participates in "Click It or Ticket," one of the most intensive law enforcement efforts of its kind. Since the start of the program, law officers have held nearly 30,000 checkpoints and more than 200,000 safety belt and 18,000 child safety seat citations. Since its inception in 1993, it has reduced fatalities and serious injuries by over 14%.

ROADSIDE SAFETY DEVICES BROCHURE

This brochure is a reference guide that has been produced by the North Carolina Department of Transportation (NCDOT) and provided to law enforcement officials within the state. Any time a collision occurs, that involves roadside safety devices (signs, median barrier, etc.) the NCDOT can seek retribution for the damages from the responsible party's insurance company. If the officer's estimate of the damage (as indicated on the collision report) and the actual billed, repair cost are close, then the insurance companies typically reimburse the state without much questioning. However, in instances where these two numbers vary substantially, the insurance companies are often reluctant to pay. Due to insufficient manpower, the district offices do not always actively pursue these collections, resulting in millions of lost revenue each year.

This brochure was prepared and distributed in an effort to provide law enforcement with a more accurate method of assessing actual damages and repair/replacement costs to roadside safety devices to be included on the DMV-349, North Carolina Collision Report form.

By providing a more accurate estimate of actual damages, law enforcement officials greatly assist the NCDOT in its efforts to recuperate these costs from the appropriate parties.

FATAL SLIP DISTRIBUTION

When a fatal collision occurs in North Carolina that is investigated by the State Highway Patrol (SHP), the Traffic Engineering Branch has the ability to query the Patrols database of fatal crash investigations. This information is queried three times a week and information about the fatal crash is sent out to traffic engineering field offices for investigation. This information is also summarized and grouped by collision type into broad categories that have historically been of concern (i.e. across median, run off road, alcohol, etc.). In addition to this information being sent to our field offices, it is also sent to many high level stakeholders both within and outside of the Department who have an interest in highway safety. The notification not only serves as a reminder of the need to move forward with our safety efforts, but it also provides some generalized information as to the problem areas.

ELECTRONIC REPORTING

TRCS is our electronic crash reporting application that allows officers to fill out a crash report, have it approved by a supervising officer and then directly submitted to the Division of Motor Vehicles (DMV) crash database. This application eliminates the need for DMV data entry personnel to reenter the data, which saves time and reduces opportunity for data entry error. Reports submitted by police officers again have to be approved by a supervising officer and the data must also meet all of the business rules in order to be included in the official DMV crash database. If a report is submitted to DMV and fails to meet all of the set business rules, it is rejected and returned to the reporting officer/agency for correction.

This program started accepting crash reports from law enforcement agencies in June of this year and currently has 21 agencies reporting crashes using TRCS. Through November 2004, almost 1500

crashes have been submitted and accepted using the TRCS system. The North Carolina State Highway Patrol (NCHSP), Durham Police Department and Charlotte-Mecklenburg Police Department already have some of their officers reporting crashes through TRCS. Additional large cities, such as Raleigh and Fayetteville are trained to use TRCS and are scheduled to start submitting crashes through TRCS sometime in the first part of 2005. Getting the NCHSP and these larger cities submitting all of their crash reports through TRCS will constitute well over 70% of the total crashes that will no longer need to be entered into the system manually by DMV. This would have the effect of reducing DMV's data entry workload, which should easily reduce the backlog of crashes to be entered from 6 months to possibly 3 or less months. TRCS is improving crash reporting timeliness and accuracy.

TEAAS DEVELOPMENT

The Traffic Engineering Accident Analysis System (TEAAS) is the tool utilized to perform standardized crash analysis. TEAAS provides an easy to use interface for producing standardized reports and crash rates and is capable of producing these for both intersection and section analysis. TEAAS can also provide city and county wide "canned" summary reports for various queries such as: 1) Accident types and violations, 2) Age and sex of driver, 3) Alcohol, Ambulance and Vision, 4) High Accident Intersections, 5) Injuries and Restraint Usage and others. TEAAS is available to anyone who wishes to use it and only requires a PC with a windows operating system, an internet connection and the TEAAS software (free). The NCDOT provides free training and support for all end users.

TRAFFIC CRASH FACTS REPORT

The *North Carolina Traffic Crash Facts* report contains statewide information on traffic crashes, deaths and injuries from the Department's crash database, compiled from traffic crash reports completed by state and local law enforcement agencies. In an effort to identify current and emerging traffic safety issues, this report offers this information in several levels of detail, including number and type of crashes, types of vehicles involved in crashes, severity of injuries, and age and sex of drivers. Overall, these crash statistics provide a comprehensive understanding of highway safety issues and assist in the development of engineering, enforcement and education programs in target areas. This information serves as a resource for traffic safety professionals and others interested in making North Carolina's roadways safe for the traveling public.

Also provided in this report are summary data at the county level for all 100 counties in the state. This information includes not only crash data in various categories, but also information such as population, vehicle miles traveled, crash rates and comprehensive costs. In addition to the county level summary information, county rankings along with individual city rankings (grouped by cities with populations greater than 10,000 and populations less than 10,000) are provided.

The data in this report, illustrates the true "crash tax" of these incidents to the citizens of the state. In 2003, the comprehensive costs per person in the state for all crashes and associated costs was over \$1,100.00.

SMARTZONE TECHNOLOGIES

North Carolina has many efforts underway to improve the safety within our many work zones across the state. Listed below are some of the major initiatives ongoing within our work zones.

I. Real Time Travel Information Systems:

These systems monitor traffic conditions to provide "real time" travel/delay times in advance of the work zone. Also, where alternate routes exist, they can provide alternate route information well in advance of the traffic queue.

The significance is these systems can provide information for current conditions in a real-time manner. The messages displayed can be activated and deactivated based on current traffic conditions. The previous use of changeable message signs involved using preprogrammed messages that were displayed continuously whether the condition existed or not. The motorist couldn't be sure if the message was reflective of actual conditions. Now, with the use of this technology, the motorists can "trust" the information to be more reflective of the actual conditions.

The benefit is we are providing information the motorists can rely on for accuracy and in turn will be able to adjust to the upcoming road condition. The idea is to reduce rear end crashes and fatalities associated with queuing in work zones.

II. Weather/Road Condition Information

These systems involve roadside sensors that detect standing water, fog, ice, ect. and can relay this information to portable changeable message signs in advance of the road condition.

The significance is that it can provide this information for current conditions. Until recently, the only method to inform motorists of these type of conditions were either stationary signs with flashing beacons that had to be manually activated or a changeable message sign that was pre-programmed. The motorist couldn't be sure if the message was reflective of actual conditions. Now, with the use of this technology, the motorists can "trust" the information to be more reflective of the actual conditions.

The Benefit is we are providing information the motorists can rely on for accuracy and in turn will be able to adjust to the upcoming road condition. The idea is to reduce rear end crashes and fatalities associated with queuing due to poor visibility or the presence of standing water on the highway.

III. Dynamic Lane Merge

These systems manage lane utilization during lane closure activities by detecting congestion. Once activated, this information is relayed to portable changeable message signs.

The significance is that it can manage queue lengths by allowing more utilization of the upcoming lane closure once congestion is detected. Counter, it can also encourage early lane merging during free flow periods in an attempt to reduce late lane mergers at higher speeds resulting in errant maneuvers and possible crashes.

The benefit is this system can monitor "real time" traffic conditions and can perform "freeway metering" once traffic conditions deteriorate thus dissipating longer queues by utilizing more of the available lanes for storage until volumes subside. In addition, it can better manage queue development during non-peaking periods by encouraging the motorist to merge early and reducing the number of "late lane" mergers.

IV. Automated Speed Enforcement

Although no deployments have been made, these systems will target work zones where speeding is a contributing factor to crashes or where speeds are jeopardizing the safety of the construction workers when working behind passive lane closures.

The significance will be a system that brings a needed element of speed enforcement without straining the resources of local and state law enforcement agencies.

The benefit will be work zones with better uniform speeds in advance and through the zone without having to reduce the existing speed limits to get speed compliance. These uniform speeds will provide additional safety to the motoring public's exposure to the highway construction as well as improve the safety of the highway workers.

As illustrated, there has already been many major efforts made to improve highway safety within North Carolina, however, current crash data shows that there is still much left to be done. Table 1 summarizes motor vehicle crash data and characteristics about the population and transportation system for North Carolina for the past ten years.

APPENDIX B

COMMERCIAL VEHICLE SAFETY PLAN



COMMERCIAL VEHICLE SAFETY PLAN

STATE OF NORTH CAROLINA





COMMERCIAL VEHICLE SAFETY PLAN

STATE OF NORTH CAROLINA

***MCSAP BASIC ALLOCATION
FEDERAL FISCAL YEAR 2007***

SUBMITTED TO:

**FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION
U.S. DEPARTMENT OF TRANSPORTATION**

SUBMITTED BY:

**THE NORTH CAROLINA STATE HIGHWAY PATROL
MOTOR CARRIER ENFORCEMENT ADMINISTRATION**

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I. GENERAL OVERVIEW

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A. Agency Mission (350.213(a)(1))

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A. Agency Mission

The mission of the North Carolina State Highway Patrol is to ensure safe, efficient transportation on our streets and highways, reduce crime, protect against terrorism, and respond to natural and man-made disasters. This mission is accomplished in partnership with all levels of government and the public, with high ethical, legal, and professional standards. Our vision is to set the standard for law enforcement.

B. Program Overview

In January 2003, the Highway Patrol absorbed 364 positions from the previous lead agency for the MCSAP agency, the North Carolina Department of Transportation's Division of Motor Vehicles Enforcement (DMV). This merger did transfer all elements of North Carolina's Motor Carrier Safety Assistance Program (MCSAP) over to the Highway Patrol. Commercial Motor Vehicle Enforcement is now administered through the Highway Patrol's "Motor Carrier Enforcement Section," (MCES).

Beginning in January of 2004, this transition of MCES positions began to include a transition school. The purpose of the transition school is to bring MCE employees up to address inequities among pay, ranks, and level of arrest authority. Upon completion of a transition school, graduating members of the MCES enjoy identical pay, rank, and arrest authority as their counterparts—the original 1,445 sworn Highway Patrol positions that existed prior to the merger with DMV. Each class incorporates approximately 30 employees of the MCES. Each class lasts 8 weeks, and is preceded by a three-day orientation that takes place eight weeks before the school begins. The eight week program is a residential program so the students are housed at the Patrol's training academy during the week for 8 weeks. As of July 1st 2006, eight transition schools have been completed. 176 MCE officers have become full-fledged State Troopers, with the same arrest authority and pay as their NCSHP counterparts. MCES employees will continue to focus on commercial vehicle traffic. After finishing the transition school, however, MCE Officers share the same jurisdiction as State Troopers have always had.

During the first eight transitional schools, the 176 graduates lost a combined 2,478 pounds! Additional fitness improvements were measured, using the Cooper Fitness Scale. The average starting Physical Fitness level was 39.18%; the average finished physical fitness level was 62.12%. Significant improvements were achieved during each school's physical training program.

The absorption of the positions from DMV is enabling the Highway Patrol to serve the state as the lone agency responsible for enforcing highway safety laws and regulations for privately-owned vehicles and for commercial traffic.

North Carolina's highway system boasts more than 99,000 road miles—the second-highest number of road miles in the nation. Interstates 26, 77, 85, and 95 provide north-south routes throughout our state, while Interstate 40 provides an east-west track from Wilmington and the Atlantic Coast to Asheville and points west along the Smoky Mountains in Appalachia. These interstate routes, combined with US Highways and State Roads, help to make North Carolina a major hub for commercial vehicle traffic.

Since the inception of the MCSAP Program, and continuing into the present day, considerable emphasis continues to be placed upon commercial vehicle inspections, size and weight enforcement, and driver compliance issues to reduce the frequency and severity of commercial motor vehicle collisions. Our aggressive enforcement campaigns promote self-policing on the part

of the trucking industry, as well as CMV-related associations such as the Forestry Association, the NC Trucking Association, and the NC Manufactured Housing Authority. The Highway Patrol's Motor Carrier Enforcement Section also works closely with local law enforcement agencies, the Governor's Highway Safety Program, and other highway safety partners and customers to further North Carolina's commitment to the safe and efficient transport of the motoring public in our state.

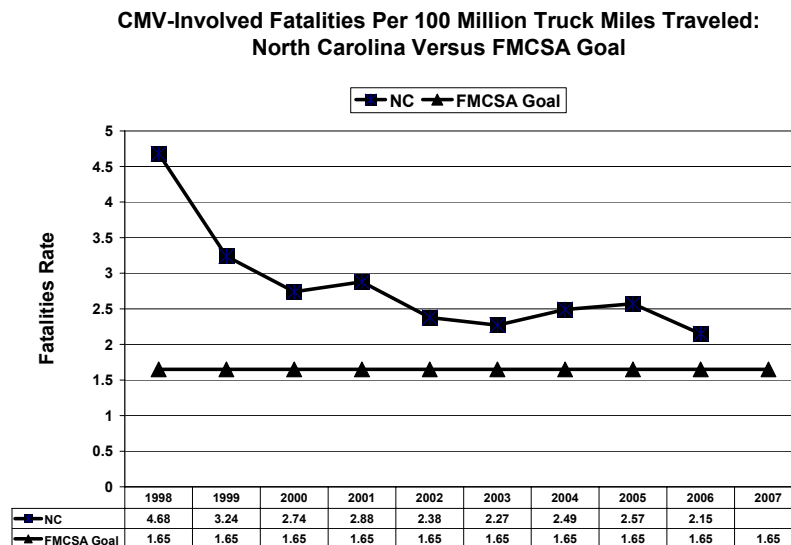
The State of North Carolina further commits to maintaining its core MCSAP program elements, which include uniform driver and vehicle compliance standards. These standards are enforced through regular safety inspections, enforcement programs, and public awareness and education programs.

C. Summary of Program Effectiveness

CMV Crash Reduction

The Collective Effect of Motor Carrier Enforcement Activity on CMV-Involved Crashes in NC

The Federal Motor Carrier Safety Administration (FMCSA) as part of its Strategic Plan (through 2008) has adopted a goal of 1.65 CMV-involved fatalities per 100 million miles of truck travel. The FMCSA strategic goal defines the performance requirement for CMV safety at both a national and a state level. The figure below shows North Carolina progress toward achieving the FMCSA strategic goal.



The chart shows that North Carolina, since 1998, has made continuous progress toward the FMCSA 2008 crash reduction goal although the rate at which progress is being achieved has slowed since 2002.

The table below shows the full range of CMV crash severity since CY2000. The first data table breaks down CMV-involved crashes by level of crash/injury severity as well in terms of the number of persons involved in each category. The metadata at the bottom of the chart explains the vehicle classes included in these statistics.

The bar charts immediately following the table plot total CMV-involved crashes, total non-fatal CMV-involved crashes, number of persons killed in CMV-involved fatal crashes, and lastly, the number of fatal CMV-involved crashes (i.e., a crash involving at least one CMV, regardless of the number of individuals killed).

The data show that from CY2005 to CY2006 (where 2006 has been 'estimated' based on January-May crash data) there has been an 'increase' in CMV-involved crashes in North Carolina. The chart in the upper right however shows that non-fatal injury crashes have remained relatively unchanged. The two lower charts show that early estimates of fatal crashes and CMV-involved fatalities in 2006 have declined.

The map-based figures which follow show plots from the ITRE GIS crash database for various regions of the state and well as for the state as a whole. The areas of state highlighted are the Charlotte-Mecklenburg area, the Winston-Salem/Greensboro area, and the area of Wake and surrounding counties. A chart is also provided that shows CMV-involved crashes in CY2006 occurring each of I-95. CY2006 crash data are currently being input into the GIS crash database.

CMV Crashes January 1, 2000 - May 31, 2006*

Crash Year	Total CMV Crashes	# Fatal Crashes	# A Injury Crashes	# B Injury Crashes	# C Injury Crashes	# PDO Crashes	# Unknown Crashes	# Killed	# A Injuries	# B Injuries	# C Injuries
2000	14062	175	366	1490	3192	8711	128	203	472	1996	5297
2001	12573	186	238	1231	2923	7889	106	213	332	1643	4765
2002	12720	163	250	1179	2848	8152	128	181	325	1659	4743
2003	13532	162	227	1236	3006	8775	126	180	279	1719	5102
2004	13932	177	244	1343	3083	8947	138	202	322	1796	4953
2005	13375	193	222	1293	2691	8845	131	216	279	1716	4436
2006*	6034	70	88	513	1301	4003	59	78	115	673	2101
2006 Est	14482	168	211	1231	3122	9607	142	187	276	1615	5042

Data Run By Dwayne Tharpe on 7/28/2006.
Data extracted from the NCDOT TEAAS system.

<mailto:dtharpe@unc.edu>

-

Accident type was coded:

(Table)

mvc_crash_report

(Valid Value)

acdnt_typ_cd = 'F', 'I', 'D' (Fatal, Injury, and Property Damage Only Crashes)

Vehicle Type was coded:

(Table)

mvc_unit_code

mvc_unit_code

mvc_unit_code

mvc_unit_code

mvc_unit_code

mvc_unit_code

mvc_unit_code

(Valid Value)

vl_cd = 6 (Commercial Bus)

vl_cd = 10 (Single Unit Truck (2-axle, 6-tire)

vl_cd = 11 (Single Unit Truck (3 or more Axles)

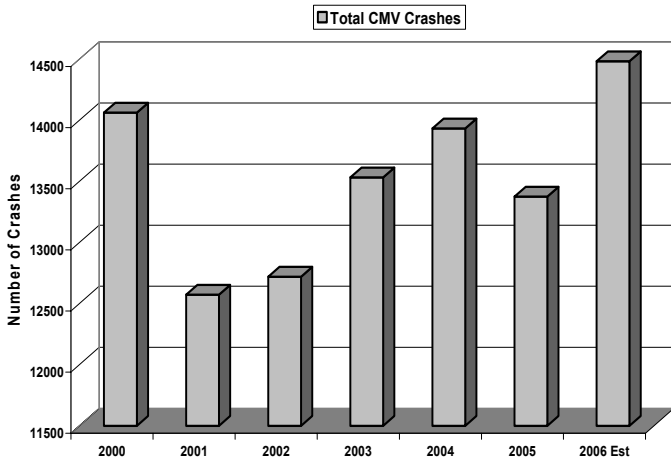
vl_cd = 12 (Truck/Trailer)

vl_cd = 14 (Tractor / Semi-Trailer)

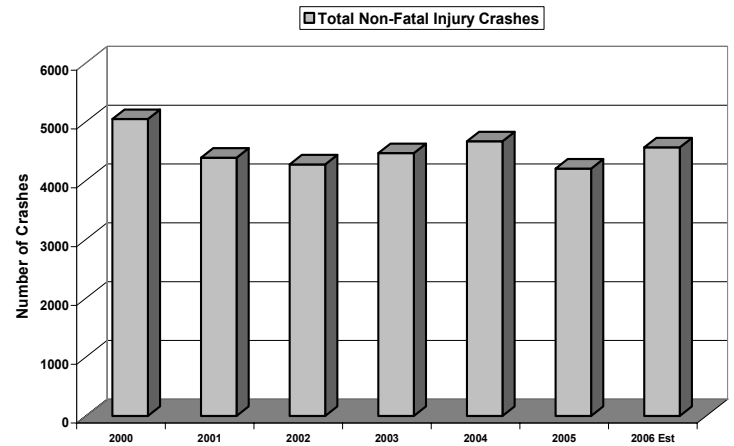
vl_cd = 15 (Tractor / Doubles)

vl_cd = 16 (Unknown Heavy Truck)

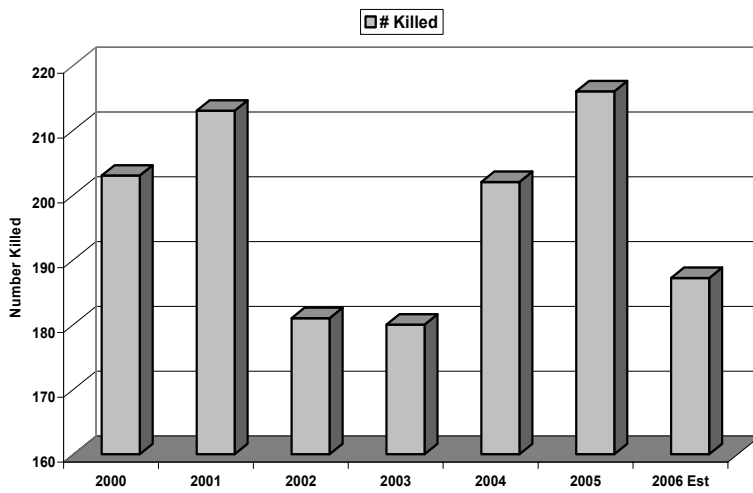
Total CMV Crashes



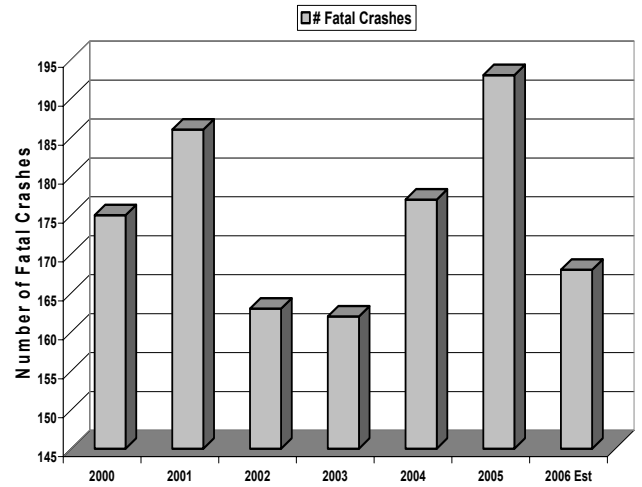
Total Non-Fatal Injury Crashes



Number Killed in CMV-Involved Crashes



Fatal CMV-Involved Crashes



Level of Motor Carrier Enforcement Activity

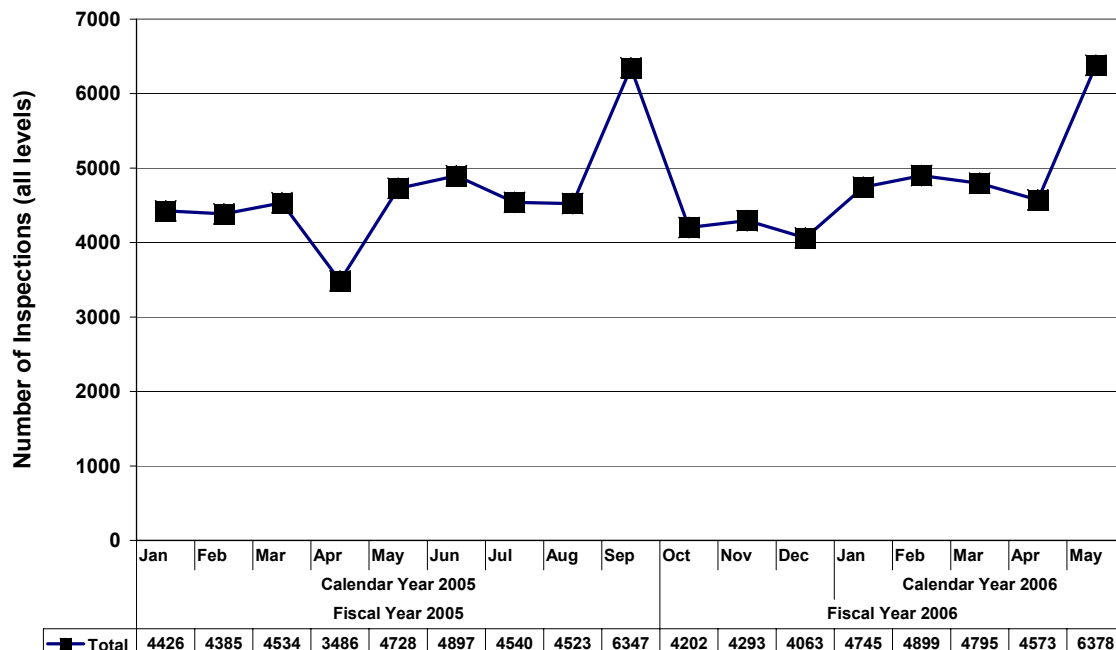
Overall Assessment for FY05-06

The essence of the motor carrier enforcement function is defined in large part by the conduct of roadside inspections of commercial motor vehicle drivers and vehicles. The following charts show the extent of that effort in North Carolina over the period from January 2005 through May 2006.

Driver and Vehicle Inspections Conducted

The chart below shows the number of driver and vehicle inspections conducted by MCE and CVSA-certified troopers from January 2005 through May 2006. The table immediately below the figure compares the most recent period for which data are available (January-May 2006) with the same period of the previous calendar year (January-March 2005). The data show an 18% increase in inspections over the previous year. At that rate, the total number of inspections predicted for CY2006 would be 60,936.

Total Inspections Conducted

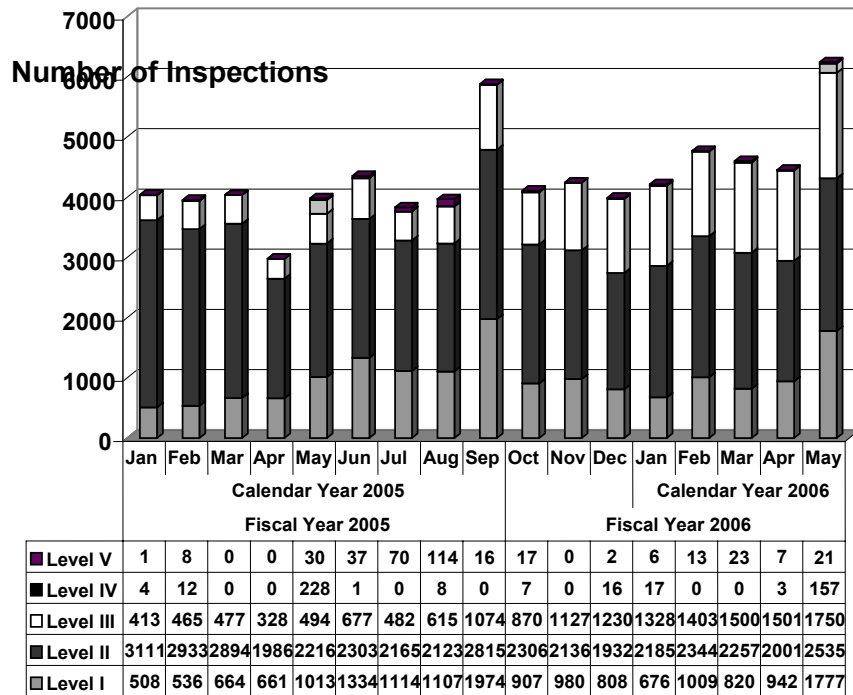


	Jan	Feb	Mar	Apr	May	6-mo Total
Jan-May 2005	4426	4385	4534	3486	4728	21559
Jan-May 2006	4745	4899	4795	4573	6378	25390

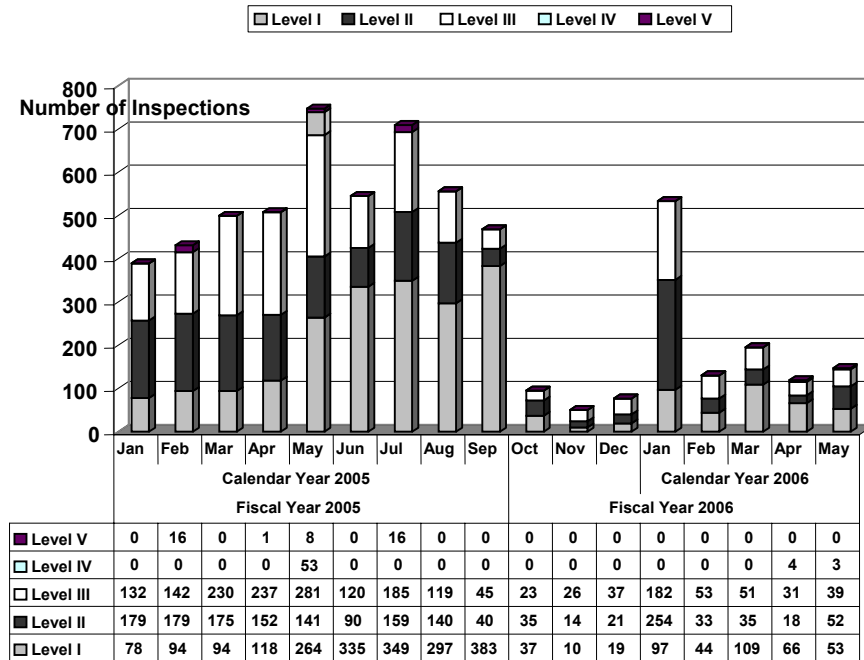
The two following bar charts break down the contribution of MCE and CVSA-certified officers to these totals. These charts show both show numbers of inspections conducted by 'level.' The data show that MCE personnel tended to conduct more Level II inspections than their CVSA-certified (trooper)

counterparts. These data show CVSA-certified troopers focusing more on Level I and Level III inspections (39% vs 23% for Level I and 31% vs 21% for Level III). Comparative levels of effort for inspections conducted at other levels are shown graphically in the pie charts. Perhaps the most notable trend in these data is the significant decrease in inspections conducted by CVSA-certified troopers beginning in FY2006.

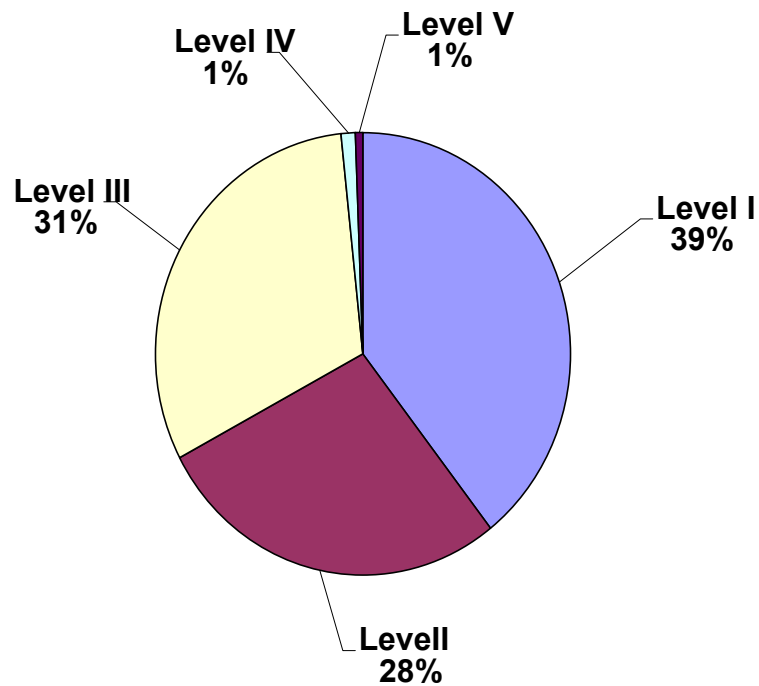
Number of Distributions of Inspections Conducted by MCE Personnel

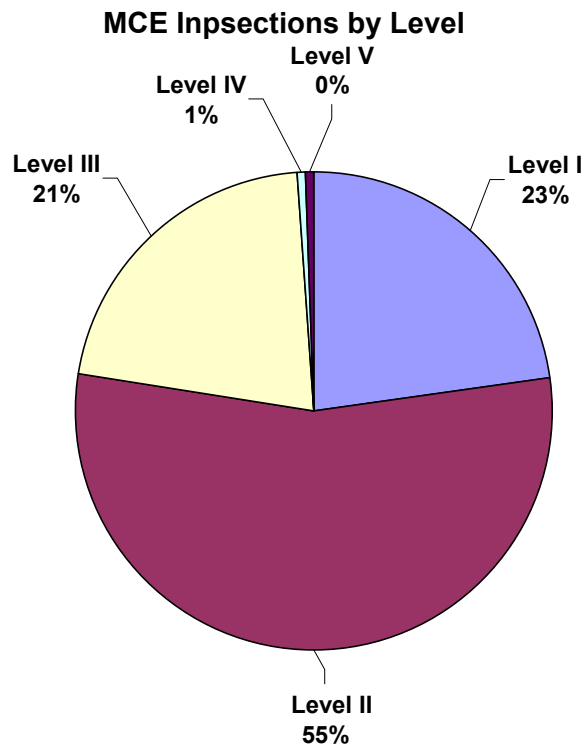


Number and Distribution of Inspections Conducted by 'Troopers'



Distribution of Inspections by Level for Troopers





Citations Issued for Serious CDL Violations

The MCE mission also includes the requirement to cite operators of commercial motor vehicles for serious CDL (traffic) violations. The table below shows the number of citations issued to CMVs for 'serious CDL (traffic) violations. The comparisons are for the periods January-May 2006 and the same five month period of the previous year (January-May 2005).

Citations for Serious CDL Violations

		Jan-May 2005	Jan-May 2006
392.2FC	Following Too Close	95	53
392.2LC	Improper Lane Change	37	49
392.2R	Reckless Driving	26	25
392.2S	Speeding	2626	2366
392.2C	Failure to Obey Traffic Control Device	111	92
392.2P	Improper Passing	20	7
392.2T	Improper Turns	6	9
392.2	General	4252	4868
392.2W	Size and Weight	1392	546
392.2Y	Failure to Yield Right of Way	20	6
	Total Citations	8585	8021

Total citations issued for serious CDL violations during Jan-May 2006 lagged those issued for the same period in 2005 by 6.5 percent (8592 vs 8021). Citations for improper lane change were 'up' by 32 percent. Fewer citations were issued for improper passing 392.2P (65 percent fewer), for following too close (45 percent fewer), and for failure to yield right of way 392.2Y (70 percent fewer). Citations issued for improper lane change were 32 percent higher in 2006 than for the same 5-month period of 2005.

The Relationship of MCSAP to FHWA-Funded Size and Weight Activities

Motor carrier enforcement personnel in North Carolina are also charged with the enforcement of CMV size and weight restrictions. In this area, MCE personnel are responsible to the Federal Highway Administration (FHWA) who funds, through the NCDOT, the infrastructure component of the state's size and weight program. The opportunity to weigh a commercial vehicle, either on static scales at a permanent weigh station or on portable scales at the roadside also presents an opportunity for an inspection of the driver and vehicle. To the extent that some proportion of unsafe trucks may also be overweight trucks, the size and weight program serves to address a safety goal in addition to the goal of preserving the roadway infrastructure.

Improved MCE productivity suggests that the disruptive effects of the 2003 merger with NCSHP are being overcome. As more of the MCE uniformed work force complete NCSHP transition training and the accompanying pay equalization, further improvements in productivity can be anticipated. Levels of MCE activity can also be expected to increase with the continued cross-training of non-MCE 'troopers' and with the adoption of programs that provide for more effective integration of trooper and motor carrier activities.

Unresolved problems remain with respect to the 'disconnect' between MCE administration and its ability to provide direct management supervision to MCE officers assigned to NCSHP Field Operations. NCSHP is sensitive to the problem and is working to identify more effective organization/management solutions.

Interagency Coordination and Shared Responsibility

There is an increased recognition that the traditional types of motor carrier enforcement activity (inspections, etc.) while a necessary component of an overall CMV safety program are not 'sufficient' to ensure that strategic FMCSA crash reduction goals are achieved. Largely through efforts to establish a CMV Fatal Crash Review Committee (comprised of NCSHP/MCE, NCDOT, FMCSA, the North Carolina Trucking Association, and others), North Carolina is slowly moving toward the recognition that truck safety is not just about data timeliness and accuracy. It is about the infrastructure and traffic control needs of larger vehicles; it is about a cooperative/informed judicial component and effective adjudication; it is about education/training to the motoring

public who operates with large trucks in a shared roadway environment; it is about adopting increased (real and perceived) enforcement presence; it is about the implementation of safety programs that bear a clear and direct relationship to crash reduction. North Carolina has established a Governor's Executive Committee for Highway Safety (not to be confused with GHSP). It was recently recommended that the Executive Committee establish a CMV Safety working group to increase the focus on CMV-specific safety issues/programs. Dr. Hughes (now with NC State University Institute for Transportation Research and Education) has volunteered to head that group.

North Carolina Participation in National R&D Goal Setting

North Carolina MCE personnel are successfully partnering with NCSU, Volvo Trucks North America, Volvo Technology America, and the Commercial Vehicle Safety Alliance (CVSA) on an effort funded by the I-95 Corridor Coalition addressing the feasibility of 'wireless' inspections of commercial vehicles. NCSHP/MCE personnel involvement is covered by state matching funds. NCSU's involvement is from I-95CC funds, as is that of CVSP. Volvo participation is partly covered by grant funds and partly through its own cost share. The effort will produce a September 2007 field demonstration in Greensboro at the Volvo facility. Discussions are taking place with the Transportation Security Administration of the Department of Homeland Security on a TSA-funded expansion/continuation of that effort as part of its own Truck Tracking Center project. North Carolina's involvement in these efforts place it at the forefront of what is going on in FMCSA in terms of 'wireless' technology and Expanded CVISN. While motor carrier enforcement is an obvious focus on these efforts, clear delineation is being maintained between work funded by MCSAP, work funded by the I-95 Corridor Coalition, and work funded by TSA.

II. NATIONAL PROGRAM ELEMENTS

OVERVIEW

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A. Driver/Vehicle Inspections (350.109(a))

Beginning October 1 2004, officers were required to conduct the following minimum average number of inspections for days worked. Officers funded through the MCSAP were required to conduct a minimum of four (4) inspections per day, CVSA certified officers (non-MCSAP funded) were required to conduct a minimum of two (2) inspections per day, and CVSA certified Troopers were required to conduct a minimum of three (3) inspections per day. Field Operations increased the number of inspections in order to continue to provide safety to the traveling public. Currently, MCSAP officers are required to conduct five (5) inspections per day, CVSA certified officers (non-MCSAP funded) are required to conduct a minimum of two (2) inspections per day, and CVSA certified Troopers are required to conduct a minimum of two (2) level III inspections per day. MCES projects that 60,000 inspections will be conducted during FY 2007 and will continue to increase with the completion of the transitional schools referred to in the FY 2006 CVSP...

B. Traffic Enforcement (350.109(b))

Data show that there still exists a concern with CMV trucks speeding and committing "Serious CDL Violations" on North Carolina highways. During FY 2006 (October- 05 thru June- 06), MCES officers conducted 7,911 inspections (source: Safetynet Data) related to traffic enforcement stops. Of this number, 5,529 (70%) were related to **Serious CDL violations**. To help combat this problem, NC MCES implemented a traffic enforcement, Level III inspection project during FY-2004. By cross training NC State Troopers in the NASI/CVSA inspection course(s), these Troopers are able to conduct Level III inspections on CMV drivers who are committing Serious CDL Violations. State Troopers who have passed the NASI course and have been CVSA certified basically concentrate on Level III inspections during their normal patrol activities. This project is being extended to all CVSA certified officers (including the MCASP funded officer/troopers) in FY 2007. With increased emphasis on the CMV driver, MCES hopes to realize a tremendous drop in Serious CDL Violations and moreover, a recordable reduction in CMV related crashes and fatalities. These activities will be monitored by the field Troop Commanders as well as by the MCSAP office. Statistics specific to these activities will be reported quarterly to the FMCSA State Director on the quarterly report. In FY 06, the State began to change the type of patrol vehicle issued to the MCSAP officer/troopers in order allow the officer/troopers a more feasible unit to conduct inspection activities from, as well as being rated as a pursuit vehicle. During FY 06, 30 new vehicles were purchased to replace the ones which have mile aged out. The state will purchase enough vehicles to replace the remaining ones purchased in FY 2003 that will mileage out this year according to the North Carolina State Highway Patrol vehicle replacement procedure. Due to funding limitations in the basic MCSAP grant, High Priority funds will be needed to complete the replacement of all MCSAP vehicles.

C. Compliance Reviews (350.109(c))

In FY 06, the North Carolina State Highway Patrol requested and approved sixteen (16) new civilian positions as auditors (investigators). The concept was to train the new personnel and replace the current Officers with the new civilian auditors allowing the Officers to return to their law enforcement duties of conducting inspections and enforcing traffic laws on CMV's. The training request is included in the training section of the CVSP. These sixteen (16) positions and one (1) coordinator position will be paid from the New Entrant Grant Budget. Currently (15) auditors and (1) coordinator have been trained and are certified by FMCSA to conduct investigations, inspections and two auditors are certified to conduct compliance reviews (CR's) on motor carriers. During FY 2006 (October through July), MCES auditors conducted 6 CR's, and 340 New Entrant Reviews, for FMCSA.

D. Public Education and Outreach (350.109(d))

MCES will continue to provide CMV highway safety presentations to motor carriers and public organizations when requested. Through these and other means of media, MCES feels that information provided to the public will help to reduce the number of CMV related crashes. An additional media of outreach is the practice of CMV safety promotional items. These are normally handed to the public at the Mountain State Fair and the North Carolina State Fair. MCES in association with the Public Information Office of Crime Control prepares slogans for printed items that reflect some form of CMV highway safety. Ie: No Zone, Speed through-See blue etc. With the adoption of the "Share the Road Safely" (STRS) program the State will also increase the overall effectiveness of education and outreach to the motoring public about operating safely around large CMVs. Therefore, an essential component of the program's objective is to test the combined effectiveness of education, outreach, and enforcement for motor vehicles around CMVs.

E. Data Collection/ Quality (350.109(e))

Our 2007 MCSAP proposal will seek to continue our ongoing partnership with the North Carolina State University Institute for Transportation Research and Education (ITRE) (formerly conducted by the North Carolina's Highway Safety Research Center (HSRC) from the University of North Carolina Chapel Hill. ITRE provides the Motor Carrier Enforcement Section with data analysis and program evaluation of our traffic safety programs, including the MCSAP agenda. ITRE implements extensive GIS-based examinations of commercial vehicle enforcement activities, which are essential to the continued development of state-based initiatives and program elements. ITRE's ongoing analysis of the relationship between enforcement and mission effectiveness are valuable assets in the program's adoption and the execution of our Commercial Vehicle Safety Plan (CVSP). With the approval of the 2007 CVSP, the NC State Highway Patrol's Motor Carrier Enforcement Section will continue this partnership with ITRE as it has proven to be a valuable resource in our commercial motor vehicle safety programs. Using the Highway Patrol's internal Computer Aided Dispatch (CAD) data would limit

our data analysis to only those incidents investigated by our agency. ITRE provides our program with a professional, third-party perspective that includes data from all CMV-related incidents that are reported anywhere within North Carolina, regardless of which agency investigates the incidents in question. Currently the North Carolina State Highway Patrol is negotiating the FY 07 contract with ITRE. ITRE funding for FY07 is identified in the overall budget as Incentive funding.

Other areas of concern for North Carolina inspection data are based on A & I data. North Carolina is a “RED” state in the following areas: crash completeness, crash timeliness, inspections timeliness and crash accuracy. The North Carolina State Highway Patrol is not the keeper of the crash data, however, the North Carolina State Highway Patrol is working with the FMCSA State office and the North Carolina Division of Motor Vehicles to resolve the crash data problem areas.

Inspection data is being uploaded to SAFER and confirmation is received through ASPEN. However, when the data is run for report purposes, all of the inspections that have been uploaded are not in the Safetynet system. The North Carolina State Highway Patrol is working with the North Carolina Department of Transportation (DOT) to incorporate the inspection data into an existing system managed by DOT which will give the Officers and Troopers who conduct CMV inspections instant access to uploading their inspection reports via a 800MHz radio network. This data will be maintained locally and uploaded into Safetynet on a periodic basis, realizing a near real time inspection data reporting and uploading process. Additionally, this will allow the MCSAP Staff the ability to cross check the local data base data and that of Safetynet to assure that all inspections have been captured in the national system.

F. Removal of impaired CMV Drivers (350.201(q)(1) and 350.213(b)(2))

The North Carolina State Highway Patrol is a full Law Enforcement Agency empowered with the authority under the North Carolina General Statutes to arrest and remove drivers of any vehicle operating on the State highways who is impaired. North Carolina operates under a ‘zero tolerance’ law for operators of commercial motor vehicles. A new bill has passed in the House and has been sent to the Senate that will make any amount of alcohol on a drivers (regardless of class of vehicle ???) breath or in their system a full charge of “Driving While Impaired”

G. Training of MCSAP Personnel to Recognize Impaired Drivers 350.201(q)(2) and 350.213(b)(2))

Current officers have standardized field sobriety testing (SFST) training as well as training on detection of impaired drivers (alcohol and controlled substances). Officers and Troopers are equipped with Alco Sensors for roadside enforcement use. NC MCES includes impaired driver detection and enforcement within the scope of its driver/vehicle inspection program. In addition, NC MCES participates with other States and police agencies in conducting DWI Border Checks on commercial vehicle drivers.

H. Drug Interdiction Activities 350.201(q)(3) and 350.213(b)(3))

NC MCES is actively involved in drug and alcohol enforcement activities. As a part of the core MCSAP activities, NC MCES will continue the conduct Drug Interdiction Activities Program (DIAP) on commercial vehicles and drivers. The North Carolina State Highway Patrol has a Criminal Intelligence Team (CIT) that concentrates on illegal transportation of narcotics across the states highways. This team is separate from the normal MCSAP DIAP operations; however the two will coordinate activities to assure the utmost enforcement of the laws regarding drug interdiction.

I. Registration Enforcement 350.201(t)(1) and 350.213(b)(4))

In compliance with Section 207, "State Cooperation in Registration Enforcement" Sections 13902, 13906, 31128, and 31129, NC MCES enforces registration and responsibility requirements. During roadside inspections, officers look for RS-3 forms and for-hire interstate carriers to ensure carriers have evidence of operating authority and/or an MC number. Citations are written for non-compliance. Once CVISN is fully deployed, this will become an electronic verification process. Currently the State does have legislative authority to place a carrier out of service for not having FMCSA issued authority.

J. Financial Responsibility Enforcement 350.201(t)(2) and 350.213(b)(4))

In compliance with Section 207, "State Cooperation in Registration Enforcement" Sections 13902, 13906, 31128, and 31129, NC MCES enforces registration and responsibility requirements. During roadside inspections, officers look for RS-3 forms and for-hire interstate carriers they ensure carriers have evidence of operating authority and/or an MC number. Citations are written for non-compliance. Once CVISN is fully deployed, this will become an electronic verification process. Currently the State does have legislative authority to place a carrier out of service for not having FMCSA issued authority.

K. Other State Programs

1. Passenger Carrier Inspections_Due to increased awareness from the motor coach industry; NC MCES will increase the number of motor coach bus inspections it performs during FY 2007. Each North Carolina State Highway Patrol Troop has been furnished with bus ramps and transport trailers to allow the CMV inspectors to conduct Level I Motorcoach inspections roadside and at carrier locations. During FY 06 (October through July), officers conducted 353 motor coach inspections.

When motor coach drivers are detected operating above posted speeds or committing Serious CDL violations, traffic enforcement officers can stop them, perform appropriate levels of inspection, and issue citations as appropriate. Likewise, if an officer detects vehicle violations during transit, the motor coach can be stopped along the roadside and inspected. Historically, the majority of motor coach inspections performed in North

Carolina have been conducted at local and regional bus terminals, major bus repair garages, the State Fair and other large event destinations. NC MCES will continue to conduct one (1) motor coach inspection operation per month per troop. This will be in addition to the annual inspection operation plan conducted at the North Carolina State Fair. During FY 04 & 05, North Carolina State Highway Patrol produced a video tape / CD covering the basic awareness knowledge that a school administrator or any other person contracting with a motor coach company should have in trying to ensure that the carrier and equipment is operating in a safe environment according to the FMCSRs. In addition, a part B was added to the video which provides the passengers (targeted toward school children) with safety information on traveling on the motor coach and also what to do in the event of an emergency.

2. Hazardous Materials Program

Realizing the vast amounts of hazardous materials transported through North Carolina each year and the fact that North Carolina has three major petroleum pipelines through out the state, and one major LP pipeline located in the State Capitol area of the state, the MCES Administration identified a lack of H.M. inspections conducted during FY 2004 and 2005. An emphasis was put on this area of inspection and during FY 2006 (October through July), MCES officers inspected 1,879 hazardous material shipments. In an effort to increase the inspections of hazardous material shipments and to also fulfill the requirement of federal regulations requiring refresher training annually, North Carolina State Highway Patrol MCSAP funded NATC instructors created a hazardous material refresher course and it will be presented to all HM certified North Carolina State Highway Patrol Officers/ Troopers. Another tool that has been tested and proven valuable for roadside inspectors is the Haz- Mat Loader software. This allows the roadside inspector to determine quickly if the HM being transported is compatible and if the proper placards, labels, markings and packaging are with in regulations for the commodity.

3. Safety Belt Enforcement: At the present time, law enforcement agencies are precluded from citing commercial vehicle operators for not wearing safety belts, as a result of an exemption granted to commercial vehicles by our State Legislature. The Legislature has recently passed Senate bill 774 which becomes effective 01 December 2006. This new legislation requires all drivers of Commercial Motor Vehicles to wear safety belts unless they meet the exemption for agriculture haulers designed specifically for intra-state farmers.

The State of North Carolina is a national leader in seat belt usage among non-CMV vehicles. The Highway Patrol regularly partners with the Governor's Highway Safety Program and their statewide "Click It or Ticket" campaign, but again this program is currently limited to private, non-commercial vehicles. When the new bill comes into effect in December 2006, it is anticipated that the "Click It or Ticket Campaign" will be expanded to include commercial vehicles.

III. Evaluation of FY06 Performance Objectives

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<p><u>State Specific Program Element</u></p> <p>Focus on CMV Speed Enforcement</p> <p>Estimated Degree to which FY06 goal was satisfied: 80 percent</p>	<p>Objective:</p> <ul style="list-style-type: none"> • To develop an SHP-wide focus on serious CDL speeding violations • To increase speed enforcement of CMVs by non-commercial vehicle enforcement personnel (specifically the 64 'troopers' cross trained in CMV enforcement operations. • To utilize CMV adjudication data from the NC Administrative Office of the Courts (AOC) in a collaborative effort on the part of enforcement and judicial personnel to increase the conviction rate of truckers cited for serious CDL speeding violations. • To integrate efforts toward alternative speed reduction methods (e.g., use of drones) with traditional speed enforcement techniques • To assist NCDOT with focus on speed reduction of CMVs in work zones. • Coordinate non- CMV speed reduction focus with other speed enforcement efforts undertaken by NC Governor's Executive Committee on Highway Safety 	<p>An NCSHP proposal for a coordinated troop/motor carrier focus on CMV speed control was prepared in conjunction with NCSU/ITRE participation on the Speed Working Group of the Governor's Executive Committee on Highway Safety. The proposal was ranked high in terms of implementation.</p> <p>Significant increase in citations for serious CDL violations.</p> <p>Tech support element of NCSHP tasked with providing CAD data on adjudication of serious CDL speed violation (in progress).</p> <p>Use of NCSHP 'drone' vehicles has been adopted by NCDOT for use in major work zones. Recommendations have been made for increasing the number of available drone vehicles.</p> <p>Achieved a significant increase in citations for serious CDL speeding violations.</p> <p>Coordination is via participation in Governor's Executive Committee on Highway Safety.</p>
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<p><u>State Specific Program Element</u></p>	<p>Objective:</p>	
<p>Prototype Implementation of GPS- based event capture.</p>	<p>Use MCE personnel in Troop C to prototype the implementation and evaluation of a GPS-based event capture capability and the inclusion of that capability as part of the existing GIS crash database system available on-line to MCE personnel.</p>	<p>GIS Crash Database now contains CMV crash data for CY2000-CY2005. Tool actively used in planning and evaluation of efforts at crash reduction</p>
<p>Maintenance of GIS Turck Crash Website</p>		
<p>Estimated Degree to which FY05 goal was satisfied:</p>		
<p>GIS Crash Database fully functional for CYs 2000-2005.</p>	<p>Provide hands-on training to Troop C personnel in the operational use of GIS and GPS capabilities for enforcement planning.</p>	
<p>Trial Implementation of GPS still in progress (GPS progress estimated at 50 percent)</p>	<p>Work with NCSHP Technical Support Services (TSS) to expand the GPS capability to two additional NCSHP troops.</p>	<p>Full implementation of GPS event capture capabilities in selected troop MCE vehicles continued to be delayed by technical problems, mostly associated with backward compatibility of event capture program with older operating systems still in use.. Plans remain in effect to complete implementation in Troop C and to extend implementation to Troops B and C. Once full operational capability is achieved, MCE personnel in Troops A,B, and C will receive hands-on training. ITRE remains ready to assist in the analysis of enforcement event data.</p>

<p style="text-align: center;"><u>State Specific Program Element</u></p> <p style="text-align: center;">Seat Belt Use by Drivers of Commercial Motor Vehicles</p> <p style="text-align: center;">Estimated Degree to which goal was satisfied</p> <p style="text-align: center;">100%</p>	<p>Objective: There is currently a conflict between Federal and NC State law with respect to the requirement that drivers of commercial motor vehicles wear seatbelts. Drivers of commercial motor vehicles in North Carolina are 'exempt' from wearing a seatbelt under General Statute 20-135.2, Exemption 2A(4).</p>	<p>The North Carolina legislature has passed (Senate bill 774) requiring all CMV drivers to wear a seat belt, the bill will come into effect in 1 December 2006. NCSHP MCES will strongly encourage greater safety belt usage among CMV drivers through enforcement, education, and outreach activities.</p>
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<p><u>National Program Element</u></p> <p>Driver/Vehicle Inspections</p> <p>Estimated Degree to which FY06 goal was satisfied:</p> <p>100 percent</p>	<p>Objective:</p> <p>To identify through roadside inspections of vehicles and drivers those that are not operating in compliance with Federal regulations</p> <p>To place unsafe drivers and/or their equipment out-of-service where appropriate</p> <p>To impose fines and penalties where authorized to do so</p>	<p>Levels of CMV driver and vehicle inspection activities have continued to rise from low/suppressed levels experienced since the 2003 merger of MCE with NCSHP. Jan–May 2005 a total of 21559 inspections were completed and in Jan-May 2006 a total of 25390 inspections were completed.</p>
<p><u>National Program Element</u></p> <p>Traffic Enforcement</p> <p>Estimated Degree to which goal was satisfied:</p> <p>100 percent</p>	<p>Objective:</p> <p>To sustain, at a minimum, the same level of CMV traffic enforcement activity in FY07 as was observed in FY06.</p>	<p>Number of citations issued for serious CDL violations remained in the range of 8000-8500 for the year.</p>
<p><u>National Program Element</u></p> <p>Data Collection</p> <p>Estimated Degree to which goal was satisfied:</p> <p>70 percent</p>	<p>Objective:</p> <ul style="list-style-type: none"> • Upload CMV crash reports within x-days • Upload CMV inspection reports within 10-days • Reduce mismatch percentage to national average 	<p>Accuracy of inspection uploads now 'green.' Accuracy of crash data as well as timeliness of both crash and inspection data remain unacceptable.</p> <p>MCSAP offer to DMV Crash Records to provide funding for two CMV-dedicated data entry personnel not yet acted on by DMV. FMCSA to provide training to state personnel on CMV crash reporting and accuracy of data elements.</p> <p>Problems with SatetyNet uploads remains problematic, despite twice daily uploads.</p>

<p style="text-align: center;"><u>State Specific Program Element</u></p> <p>Civilianization of Weigh Station Operator (WSO) Positions and CMV Cross Training of SHP “Troopers</p> <p>Estimated Degree to which FY06 goal was satisfied: 100 percent</p>	<p>Objective: To increase the number of law enforcement personnel available for operational motor carrier enforcement activities.</p> <p>Weigh Station operators have been trained and are working at the weigh station allowing the uniform officers to return to the field.</p>	<p>Troopers who have been trained in the North American Standard Inspection(s) will be given the opportunity to transfer to the Motor Carrier Enforcement Section</p> <p>Currently nine troopers have transferred into a MCSAP position.</p>
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<p>National Program Element</p> <p>Public Education and Awareness</p> <p>Estimated Degree to which FY06 goal was satisfied:</p> <p>80 percent</p>	<p>Objective: To develop a multi-pronged approach to increasing the understanding of the general public and other stakeholders (e.g, state DOT) having a vested interest in improving the ability of passenger vehicles and large commercial vehicles (trucks) to safely share the roadway</p>	<p>Strong coordination continued between MCSAP, ITRE, NCDOT Traffic Engineering, GHSP, the NC Trucking Association, and the NC Governor's Executive Committee on Highway Safety. In FY06, a dedicated CMV safety working group was established.</p>
<p><u>National Program Element</u></p> <p>Compliance Reviews</p> <p>Estimated Degree to which goal was satisfied:</p> <p>TBD</p>	<p>Objective: Maintain a minimal level of compliance reviews to maintain certification during the current FY and re-evaluate the program for FY 2007.</p>	<p>Currently (15) auditors and (1) coordinator have been trained and are certified by FMCSA to conduct investigations, inspections and compliance reviews (CR's) on motor carriers.</p>

Overall Evaluation of FY06 Goals and Strategies With Respect to FMCSA Strategic Goal for Truck Safety

North Carolina was successful in meeting the majority of its program element goals outlined in the FY06 CVSP. For the first time in four years, North Carolina experienced a reduction in fatal CMV-involved crashes and CMV-related fatalities, even though CMV-involved 'crashes' showed an increase.

Driver and vehicle inspection activity increased by 18 percent (Jan-May 2006 compared to the same period Jan-May 2005). CVSA-certified 'troopers' are now contributing to the overall inspection effort.

Citations or serious CDL speeding violations remained in the same range as the prior year (8000-8500). While not shown in the annual comparisons, quarterly data indicate an increase in citations for serious CDL speeding violations . . . consistent with the intent to place added focus on the driver/behavior element associated with crashes.

Public education and awareness efforts continue to place demands on constrained and limited resources at the troop level. Troop level CVSP planning consistently points to the troops expressed need for a dedicated motor carrier TSI position.

The GIS truck crash database effort with NCSU was successfully maintained; data are now available for calendar years 2000-2005 and accessed in both a 'map viewer' as well as summary 'tabular' format. NCSU also continued to maintain the on-line CMV crash tool that provides an interactive capability for personnel to access county, troop, and statewide statistics on truck-involved crashes (2000-2005).

MCSAP personnel were instrumental in getting established a dedicated CMV working group as part of the NC Governor's Executive Committee on Highway Safety, and leads the 'enforcement' working group of the larger CMV committee. This provides increased opportunity for interaction with NCDOT, GHSP, HSRC, NCSU, the NC Trucking Association, and representatives from the trucking industry.

Troop level CVSP planning exercises were held for the first time this year in support of FY07 requirements. This permitted individual troops to ensure that troop-specific requirements were included in the state-level plan. Efforts were also undertaken to conduct periodic reviews of motor

carrier activity and performance similar to the quality management board (QMB) reviews held by the NCSHP in other areas.

With the help of NCSU, MCSAP took a lead role in addressing both the crash and inspection data quality issues identified by FMCSA. MCSAP initiated twice daily uploads of inspection data, and has encouraged DMV Crash Records to do the same. MCSAP also proposed to fund two CMV-dedicated positions within the DMV organization to focus exclusively on crash reporting accuracy and timeliness issues. While experiencing progress in the area of inspection data accuracy, accuracy issues remain in the area of crash reporting, as do timeliness issues. North Carolina will be availing itself of FMCSA provided training to those involved in crash reporting in an effort to impact accuracy. MCSAP and FMCSA are also exploring the establishment of a capability in DMV Crash Records to directly upload report to SafetyNet, eliminating the MCSAP 'middle man' function.

Monitoring

MCSAP inspection and traffic enforcement activities are monitored through use of SafetyNet generated summary reports which are formatted and analyzed at both the statewide and individual troop level by the North Carolina State University Institute for Transportation Research and Education (ITRE) as part of its MCSAP analysis and program evaluation support responsibilities. Data are monitored on a continuous basis with respect to the specific 'level' of inspection performed, the nature of the specific violations identified, and the extent to which drivers and/or vehicles are placed out-of-service in conjunction with inspection and traffic enforcement actions. These trends are tracked both statewide and at troop levels.

The accuracy of inspection reports and the timeliness with which they are entered/uploaded into SafetyNet are monitored through the use of SafetyNet generated reports. Data are analyzed with respect to changes relative to both regional and national trends.

The accuracy of CMV-involved crash data and the timeliness with which it is uploaded to SafetyNet (and to FARS in the case of fatal crashes) are monitored using SafetyNet generated summary reports. Crash report accuracy and timeliness are also monitored under a CVARS grant to the NC Division of Motor Vehicles (DMV) Crash Reporting Section. The major goals of the CVARS grant are directed at improving the timeliness and accuracy of crash reporting in NC.

Two sources of data are used to monitor the status of CMV-involved crashes in North Carolina. One source is the Traffic Engineering Accident Analysis System (TEAAS) which is maintained by the NCDOT/DMV Crash Records Section and consists of all CMV-involved crashes satisfying FMCSA reporting requirements. The other source is the NCSHP Computer Aided Dispatch (CAD) System which consists of those crashes reported by NCSHP personnel statewide. While the NCSHP CAD data represent better than 80 percent of all CMV-involved fatal crashes and approximately 60 percent of the total number of CMV-involved crashes, MCSAP relies chiefly upon these data for 'real time' monitoring of CMV crash trends. The current 4-6 month backlog in the NCDOT/DMV crash data makes it (i.e., TEAAS) unsuitable for real time program management application. Crash data from both sources are analyzed by the Highway Safety Research Center under its MCSAP analysis and program evaluation support grant. Detailed troop level analyses are provided by HSRC on a quarterly basis. Access to NCDOT crash data from TEAAS are provided online by HSRC at: <http://cf.unc.edu/cmvi/index.cfm> . Data

from 2000-2004 are currently provided on-line and can be accessed at statewide, at individual county level, and/or individual troop level as well as by level of injury severity. HSRC in conjunction with the NC State University Institute for Transportation Research and Education (ITRE) also maintains a publicly available, on-line Geographic Information System (GIS) crash database (go to: <http://152.14.29.59/website/TruckCrash/viewer.htm>). The on-line GIS capability also provides for basic spatial data analysis capabilities as well as a capability for the user to develop his/her own data queries. Under its MCSAP analysis and program evaluation support grant, HSRC provides continuous analysis and MCSAP program evaluation support to MCSAP personnel at both the headquarters and the troop level. The GIS Crash Data Base (for CMV crashes in NC) currently contains data for Calendar Years 2001-2003. Data entry for CY2004 is in progress. Data are arranged to allow comparisons across years for any or all selected variables.

MCSAP is implementing a capability to monitor the spatial characteristics of MCSAP enforcement activity via Global Positioning System (GPS) capabilities in individual vehicles. Initial implementation will be in Troops A,B, and C. GPS-based event data will be captured and integrated into the same GIS data environment used to characterize the spatial attributes of crashes. The focus will be on developing more precise ways to align the spatial attributes of enforcement activity and the spatial attributes of CMV-involved crashes. When fully implemented, the GIS enforcement 'layers' will be made available on line selectively to enforcement personnel only. **FY07** plans will be to complete operational implementation and use of the data for troop performance management purposes.

NCSU/ITRE also supports MCSAP in terms of evaluations of manpower presence and activity with respect the spatial characteristics of CMV-involved crashes and where requested makes recommendations to MCSAP management as to 'mismatches' between enforcement presence/activity levels and high crash risk areas.

MCSAP increasingly makes use of Volpe's A&I Online data for information safety and compliance information at the 'carrier' level. Inconsistencies in A&I Online data quality and completeness, however, permit its use only for deriving general 'estimates' of trends with respect to the factors influencing carrier crash risk.

IV. FY 2007 Planning Memorandum Emphasis Areas

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Table

- A. Traffic Enforcement**
- B. Non-CMV Traffic Enforcement**
- C. Electronic Verification of CDL Status**
- D. Motorcoach Inspections**
- E. Data Quality**
- F. Compliance Reviews**
- G. Hazardous Materials Program**
- H. Share the Road Program**
- I. Safety Belt Enforcement**
- J. Performance-based Brake Testing Equipment**

2007 Planning Emphasis Areas

A. Traffic Enforcement- In the State specific program. (pg.37). the common perception is that motorists take their cue from the behavior of commercial motor vehicles that are believed to have information on the presence of enforcement. So go the trucks, so goes the rest of the traffic stream. It is believed that a more strict focus on CMV speeding will not only serve to reduce the incidence of CMV speeding but also the incidence of non-CMV's as well.

B. Non – CMV Enforcement- In the State specific program. (pg.37) the state will also

Demonstrate that traffic enforcement conducted on non-CMV's will improve the safe operation and reduce crashes of CMV's. And will utilize up to 5% (if available) of the basic grant for reimbursement for non-CMV enforcement. Reduction in vehicle speeds is likely to be correlated with reduced injury severity resulting from the collision of CMV's and non-CMV's.

C. Electronic Verification of CDL Status- In the State specific program. (pg.41) North Carolina State Highway Patrol must increase their scrutiny of all CMV drivers to ensure compliance with regulations, including conducting a CDL status check through the Commercial Drivers License Information System (CDLIS), the National Law Enforcement Telecommunications System (NLETS) or the state licensing agency during every inspection and taking appropriate enforcement action.

D. Motor coach inspection- (pg.22) Due to increased awareness from the motor coach industry; NC MCES will increase the number of motor coach bus inspections it performs during FY 2007. Each North Carolina State Highway Patrol Troop has been furnished with bus ramps and transport trailers to allow the CMV inspectors to conduct Level I Motor coach inspections roadside and at carrier locations. During FY 06 (October through July), officers conducted 353 motor coach inspections.

E. Data Quality- As of June 23, 2006, FMCSA data show that North Carolina has improved in the accuracy of inspection data reported (to Green) and in the timeliness of crash data reporting (from red to yellow). The reported timeliness of inspection uploads remains unacceptable (Red) even though North Carolina is now uploading inspections reports twice daily.

F. Compliance Reviews- In the National Specific program. (pg52) North Carolina State Highway Patrol has requested and approved sixteen (16) new civilian positions as auditors (investigators). The concept is to train the new personnel and replace the current troopers with the new civilian auditors. This will allow the troopers to return to their law enforcement duties of conducting inspections and enforcing traffic laws on CMV's. The training

G. Hazardous Materials Program- (pg.23) the MCES Administration identified a lack of H.M. inspections conducted during FY 2004 and 2005. An emphasis was put on this area of inspection and during FY 2006 (October through July), MCES officers inspected 1,879 hazardous material shipments. In an effort to increase the inspections of hazardous material shipments and to also fulfill the requirement of federal regulations the State requires hazardous material refresher training annually.

H. Share the Road Program- In the national specific program. (pg.50) The State will adopt "Share the Road Safely" (STRS) program which will increase the overall effectiveness of education and outreach to the motoring public about operating safely around large CMVs.

I. Safety Belt Enforcement- In the State specific program. (pg.39) North Carolina legislature has passed (Senate bill 774) requiring all CMV drivers to wear a seat belt, the bill will come into effect in 1 December 2006. NCSHP MCES will strongly encourage greater safety belt usage among CMV drivers through enforcement, education, and outreach activities.

J. Performance-based Brake Testing Equipment- Currently North Carolina remains unconvinced that this technology is all around an appropriate means of roadside inspections on the brake system for motor carriers. North Carolina does recognize the technology as a very valuable tool for motor carriers to have and use in their repair facilities. North Carolina will monitor and re-evaluate these systems through out the year.

V. State Objectives for FY07

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Table

A. In Support of Traffic Enforcement National Goal

B. In Support of Traffic Enforcement National Goal

C. In Support of Driver/Vehicle Inspection National Goal

State Specific Program Element for FY07

(In Support of Traffic Enforcement National Goal)

Problem Statement / Justification:

Focus on CMV and non- CMV Speed Enforcement – Vehicle speeds in North Carolina are not well controlled by traditional methods (e.g. regulatory signing, etc.). The common perception is that motorists take their cue from the behavior of commercial motor vehicles that are believed to have information on the presence of enforcement. So go the trucks, so goes the rest of the traffic stream. It is believed that a more strict focus on CMV speeding will not only serve to reduce the incidence of CMV speeding but also the incidence of non-CMV's as well. The state will also demonstrate that traffic enforcement conducted on non-CMV's will improve the safe operation and reduce crashes of CMV's. Any reduction in vehicle speeds is likely to be correlated with reduced injury severity resulting from the collision of CMV's and non-CMV's.

Performance Objectives:

- To develop an SHP-wide focus on serious CDL speeding violations
- To increase speed enforcement of non- CMV's and CMV's by the general trooper personnel.
- To integrate efforts toward alternative speed reduction methods (e.g., use of drones) with traditional speed enforcement techniques and new Lidar Radars.
- To assist NCDOT with focus on speed reduction of CMV's in work zones.
- Coordinate CMV speed reduction focus with other speed enforcement efforts undertaken by NC Governor's Executive Committee on Highway Safety

Performance Measures:

- The number of CMV and non-CMV speeding violations cited by 'troopers' cross trained in CMV enforcement operations before and after CMV speed program is initiated.
- The number of CMV and non- CMV speeding violations cited by general trooper population before and after CMV speed program is initiated.
- Number of CMV and non- CMV speeding violations cited by MCE personnel before and after CMV speed program is initiated..

- Before and after spot samples of truck speeds in areas of increased CMV speed enforcement and in 'control' areas
- Before and after spot samples of non-CMV speeds in areas of increased CMV speed enforcement and in 'control' areas

Strategies:

- Strategy 1 – Pair speed reduction efforts in CMV-trained ‘troopers’ with increased Level III inspection emphasis.

Activities to Support Strategy – Develop clear expectation for CMV-trained troopers for increased focus on serious CDL violations with associated Level III inspection

Performance Measures – Number of serious CDL speeding violations cited
Measurement of other CMV enforcement violations cited in conjunction with speeding citation

Accounting of Level III inspections done by CMV-trained ‘troopers’

- Strategy 2 – Combine CMV speed reduction enforcement activity with judicial outreach and adjudication focus.

Activities to Support Strategy – Conduct face-to-face meetings in each troop with judicial representatives in order to focus specifically on adjudication of serious CDL speeding violations.

Performance Measures – Geo-targeting of CMV adjudication problems through analysis of AOC data

Conduct of face-to-face meetings in each troop with judicial representatives in order to focus specifically on adjudication of serious CDL speeding violations.

- Strategy 3 – Coordinate speed initiative with coordinated use of SHP ‘drone’ vehicles as a means of increasing perceived presence of SHP.

Activities to Support Strategy – Work with NCDOT to coordinate use of drone vehicles in all Troop areas. (perhaps in conjunction with joint speed control efforts in major construction zones).

Performance Measures – Frequency of use of drones and the rules associated with their placement/utilization.

Monitoring:

- On a troop level, conduct quarterly assessment of serious CDL speeding violations by (a) trooper, (b) CMV cross trained trooper, and by (c) MCE enforcement personnel
- Monitor speeds of general traffic flow on treatment and control segments
- Develop working relationship by troop with judicial community with explicit focus on the adjudication of serious CDL speed violations.

State Specific Program Element for FY07

(In Support of Traffic Enforcement National Goal)

Problem Statement / Justification:

Seat Belt Use by Drivers of Commercial Motor Vehicles – FMCSA recently published the 2005 CMV Driver Safety Belt Usage Study which showed only 54 percent of CMV drivers wear safety belts compared to 82 percent of passenger vehicle drivers. There is currently a conflict between Federal and NC State law with respect to the requirement that drivers of commercial motor vehicles wear seatbelts. Drivers of commercial motor vehicles in North Carolina are ‘exempt’ from wearing a seatbelt under General Statute 20-135.2, Exemption 2A(4). The North Carolina legislature has passed (Senate bill 774) requiring all CMV drivers to wear a seat belt. This bill will come into effect on 1 December 2006. NCSHP MCEs will strongly encourage greater safety belt usage among CMV drivers through enforcement, education, and outreach activities.

Performance Objectives:

- To develop an SHP- wide focus on CMV drivers not wearing a seat belt.
- To identify through road side inspections the locations of vehicles and drivers that are not in compliance with the new seat belt law.
- To cite drivers for not wearing a seat belt.

Performance Measures:

- Number of CMV seat belt violations cited by ‘troopers’ cross in CMV enforcement.
- Number of CMV seat belt violations cited by MCE personnel.

Strategies:

- Strategy 1 – Document the safety risk to drivers of commercial motor vehicles associated with not wearing a seatbelt.

Activities to Support Strategy – Work with North Carolina State University Institute for Transportation Research and Education (ITRE) to document the safety problem of unbelted drivers of commercial motor vehicles (e.g. risk of death or serious injury from being ejected from the vehicle)

Performance Measures – Documentation from ITRE on the risks associated with the operators of commercial motor vehicles (in NC) failing to wear seatbelts.

- Strategy 2 – Partner with other agencies and organizations advocating highway safety to increase seat belt usage in CMV.

Activities to Support Strategy – Work with ITRE, GHSP, NCTA, Governor’s Executive Committee on Highway Safety, etc. to design programs to educate the public and motor carrier industry. Also to help educate the driver of a commercial motor vehicle about the new CMV seat belt law..

Performance Measures – Elevation of the legal (and safety) issue to the level of the Governor’s Executive Committee on Highway Safety and, in turn, North Carolina’s Strategic Plan for Highway Safety.

- Strategy 3 – Continue to cite as a violation on the ENF500 Inspection Report.

Performance Measures – Analysis of the frequency of seatbelt citations on the ENF500.

Determination of the correlation between failure to wear a seatbelt and other driver and vehicle violations.

Monitoring:

- On a troop level, conduct quarterly assessment of seat belt violations by (a) trooper (b) CMV cross trained trooper, and by (c) MCE personnel

State Specific Program Element for FY07

(In Support of Driver / Vehicle Inspection National
Goal)

Problem Statement / Justification:

Electronic Verification of CDL Status: Many crashes involving CMVs are the result of driver error. Obviously, the CDL is our most effective tool in identifying and removing unsafe CMV drivers from our roadways. North Carolina State Highway Patrol must increase their scrutiny of all CMV drivers to ensure compliance with regulations, including conducting a CDL status check through the Commercial Drivers License Information System (CDLIS), the National Law Enforcement Telecommunications System (NLETS) or the state licensing agency during every inspection and taking appropriate enforcement action.

Performance Objectives:

- To increase the number of CDL checks on all types of inspections as well as increase the number of driver –only (level III) inspections.
- To impose fines and penalties where authorized to do so.
- To place unsafe driver's out-of -service where appropriate.

Performance Measures:

- Number of CDL violations
- Evidence of increased level III inspections (focus on traffic enforcement) by both MCE and by CMV cross trained troopers.

Strategies:

- Strategy 1 – Monitor driver and carrier compliance with regulations and guidelines.

Activities to Support Strategy – Focus on level III inspections and more emphasis on traffic enforcement.

Performance Measures – The number of inspections conducted by MCSAP or non-MCSAP trooper, whether inspection resulted in out- of -service violation and the number of citations issued for CDL Traffic violations by SHP troop.

- Strategy 2 – Maximize limited CMV enforcement manpower resources
- Activities to Support Strategy – Develop specific traffic enforcement goals/expectations for 67 MCSAP troopers assigned to the road.

Responsibilities should focus on checking CDL's while performing a Level III inspection.

Performance Measures – Monitor the performances of the MCSAP troopers assigned to the field in terms of numbers of inspections conducted, number of serious CDL citations issued, etc.

- Strategy 3 – CDLIS access from patrol vehicle
- Activities to Support Strategy Seek funding to develop a software program which will allow Troopers to access CDLIS from their patrol vehicle via the 800Mzh CIJN network. This will increase timeliness as well as give the Trooper a photo image of the driver issued the CDL.

Monitoring:

- On a troop level, conduct quarterly assessment of serious CDL violations by (a) trooper, (b) CMV cross trained trooper, and (c) MCE enforcement personnel.
- Acquire funding for CDLIS project

VI. National Objectives for FY07

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Table

- A. Driver/Vehicle Inspection**
- B. Traffic Enforcement**
- C. Data Collection**
- D. Public Education and Awareness**
- E. Compliance Reviews**

National Specific Program Element

(In Support of Driver / Vehicle Inspection National Goal)

Problem Statement / Justification:

Manpower constraints dictate that limited resources be effectively ‘targeted’ in terms of location and type of enforcement activity expended. Short term MCMIS data (2004) identified 8 locations that overall represent 36% of the fatal crashes. Long term MCMIS data (2000 through 2005) identified 12 locations that overall represent 41% of the fatal crashes. These ‘locations’ need to be more explicitly identified (e.g., at the roadway ‘segment’ versus overall ‘route’ level) and more thoroughly analyzed to determine the most appropriate enforcement actions to take, when such actions should be taken, and how to assess the effectiveness of such ‘targeted’ efforts. Analysis efforts should also identify when enforcement, per se, cannot be expected to be the most important variable in improved safety.

Performance Objectives:

- To identify through roadside inspections the locations of vehicles and drivers that are not operating in compliance with Federal regulations
- To place unsafe drivers and/or their equipment out-of-service where appropriate
- To impose fines and penalties where authorized to do so

Performance Measures:

- A reduction in CMV-involved crashes
- A reduction in the injury severity of CMV-involved crashes
- A reduction in the number of fatal CMV-involved crashes
- A reduction in the number of fatalities associated with CMV-involved crashes

Strategies:

- Strategy 1 – Monitor driver, vehicle, and carrier compliance with regulations and guidelines.

Activities to Support Strategy – Perform roadside driver, vehicle, and carrier inspections for motor coaches and trucks carrying hazardous and non-hazardous cargo.

Performance Measures – The number of inspections (by level of inspection, whether conducted by MCSAP or non-MCSAP officer, motor carrier officer or trooper, driver and vehicle deficiencies identified, whether inspection

resulted in out-of-service violation) and the number of citations issued for serious CDL traffic violations (by specific violation)... by SHP troop.

- Strategy 2 – Maximize limited CMV enforcement manpower resources.
- Strategy 3 – Increase ability of SHP ‘troopers’ to conduct driver and vehicle inspections.

Activities to Support Strategy – Monitor CME activity of cross trained troopers with emphasis on number of Level III inspections conducted and number of serious CDL citations issued (emphasis on speeding)

Performance Measures – Number of inspections conducted by cross-trained troopers, Number of serious CDL (traffic) citations issued by cross-trained troopers, Number of serious CDL (traffic) citations issued by normal troopers

Monitoring:

- On a troop level, conduct quarterly assessment of vehicle and driver violations in high accidents corridors by (a) trooper, (b) CMV cross trained trooper, and (c) MCE enforcement personnel.
-

National Specific Program Element

(In Support of Traffic Enforcement National Goal)

Problem Statement / Justification:

Traffic Enforcement – The level of CMV traffic enforcement activity continues to be seriously affected by personnel shortages that have worsened since the merger in 2003 with the State Highway Patrol. (Transition) training requirements associated with the merger will continue to reduce the number of motor carrier officers available for road duty at any given time. A high priority needs to be placed on traffic enforcement (in particular, serious CDL speeding violations) and driver-oriented (e.g, Level III) inspection activities inasmuch as our analysis of carrier crash risk for NC-domiciled carriers (ITRE, 2003) shows that driver moving violations appear to be strongly indicated as a major correlate of carrier crash risk (i.e., crashes per power unit). The state will also demonstrate that traffic enforcement conducted on non-CMV's will improve the safe operation and reduce crashes of CMV's.

Performance Objectives:

- To increase the level of CMV traffic enforcement activity in FY07 as was observed in FY06.
- By conducting non-CMV traffic enforcement in and around CMV's (i.e. speeding violation, following to close improper merge onto a highway failure to yield to an oncoming truck, allowing trucks enough room for a wide right turn.).

Performance Measures:

- Number of serious CDL moving violations
- Number of alcohol or drug related violations
- Number of other traffic violations
- Number of unspecified traffic violations

Strategies:

- Strategy 1 – Target specific types of violations occurring on roadway segments with highest risk of CMV-involved crashes

Activities to Support Strategy – Place increased command emphasis on traffic enforcement activity for motor carrier officers with a special emphasis on serious CDL speeding violations on roadway segments with documented high levels of CMV crash risk.

Performance Measures – Documented coverage/presence of enforcement on selected roadway segments, Number of citations issued for serious CDL speeding violations (392.2S)

- Strategy 2 – Utilize enforcement assets acquired as part of merger with SHP to offset motor carrier personnel shortages.

Activities to Support Strategy – Place command emphasis on CMV traffic enforcement and Level III inspection activity for CMV-trained ‘troopers’ on roadway segments with high CMV crash risk.

- Strategy 3 – Focus on the passenger vehicle component of the CMV crash risk problem.

Activities to Support Strategy – Develop an operational thrust addressing traffic enforcement activity directed at passenger vehicles operating unsafely in the immediate vicinity of commercial motor vehicles

Performance Measures – Number of traffic enforcement citations issued to the drivers of passenger vehicles for unsafe operation in the immediate vicinity of a commercial motor vehicle

Monitoring:

- Quarterly evaluations of traffic enforcement activity (citations) engaged in by motor carrier enforcement personnel.

Quarterly evaluations of traffic enforcement activity (citations) engaged in by troopers trained/certified in CMV enforcement operations.

- Quarterly evaluation of traffic enforcement citations issued to the drivers of passenger vehicles for unsafe operations in the vicinity of a commercial motor vehicle.

National Specific Program Element

(In Support of Data Collection National Goal)

Problem Statement / Justification:

At the request of the MCSAP program Administrator, NCSU/ITRE was asked to take a look at data quality problems and to make recommendations. ITRE convened all the major stakeholders in the area of crash data in an effort to arrive at recommendations for resolving these problems. Betsy Benkowski from FMCSA also attended the stakeholders meeting and provided an overview of the problem (and the process) from the FMCSA perspective.

The general assessment was (and remains) that North Carolina has good data but significant problems with the interface between the State and FMCSA data sources (SafetyNet). Resolving these IT interface problems are complicated by the fact that MCSAP continues to be held responsible for a crash data reporting problem that lies within the area of responsibility of a different state agency (i.e., the Crash Reports section of the NCDOT Division of Motor Vehicles). The recommendation made by ITRE (based in large part on discussions with South Carolina) was that MCSAP fund two dedicated CMV crash records positions within the DMV Crash Records office. That recommendation was accepted by the MCSAP program office and extended to NCDOT/DMV. The DMV is taking action toward implementing the recommendation. In the meantime, North Carolina has accepted the offer from FMCSA for gov't-provided training to those in the state directly involved in the CMV crash reporting process.

Performance Objectives:

- Upload CMV crash reports within 90-days
- Upload CMV inspection reports within 21-days
- Reduce mismatch percentage to national average

Performance Measures:

To achieve, at a minimum, performance equivalent to the national average in:

- Time (days) from crash to data entry; time from data entry to data upload
- Time (days) from inspection to data upload
- Percentage of non-match crash and inspection reports

Strategies:

- Strategy 1 – Significant backlog within DMV crash records section in terms of timeliness of uploading crash report data.(2% of records reported with in 90 days)
- Incorrect identification of CMV crash reports by DMV which affected reports uploaded to MCMIS and to FARS (19% of unmatched records)
- Activities to Support Strategy – Hire two IT persons for DMV traffic records to enter crash reports.

Performance Measures — Measured improvement in the timeliness and accuracy of crash data uploads.

- Strategy 2 – CVARS funding to temporary support staff to address backlog (timeliness)

Activities to Support Strategy – Review/check all 2004 and 2005 CMV crash reports and upload to MCMIS

Performance Measures – Upload of all 2004 and 2005 crash reports

- Strategy 3 – Participate in the oversight of the FMCSA CVARS grant to NCDOT/DMV

Activities to Support Strategy – Continue to support DMV Crash Records effort (via CVARS grant) to improve the timeliness and accuracy of commercial vehicle crash report information and its upload to MCMIS and to FARS

Performance Measures – Measured improvement in the timeliness and accuracy of inspection and crash data uploads

- Strategy 4 – CVARS funding for additional training and retraining as required (mismatch)

Activities to Support Strategy – Reactivate CMV awareness training at NCSHP troop level (train the trainer), Support NCSHP e-crash reporting initiative

Performance Measures – Participate in initial implementation of e-crash

Monitoring:

- Progress toward timeliness and accuracy objectives will be monitored through monthly and quarterly reports available from MCMIS

National Specific Program Element

(In Support of Public Education and Awareness National Goal)

Problem Statement / Justification:

Public Education and Awareness – There is a general lack of awareness among the general public as to appropriate driving behavior in/around commercial vehicles. The data repeatedly show that it is the driver of the non commercial motor vehicle (e.g. the passenger vehicle) who contributes most often to truck-involved crashes. The ‘public’ in this case needs to be extended to include state departments of transportation in terms of achieving a better understanding the contribution of roadway design, maintenance, and traffic operations. The State will adopt “Share the Road Safely” (STRS) program which will increase the overall effectiveness of education and outreach to the motoring public about operating safely around large CMVs. Therefore, an essential component of the program’s objective is to test the combined effectiveness of education, outreach, and enforcement for motor vehicles around CMVs. There is also a need to improve the understanding of the judicial community on the contribution of effective adjudication of CMV traffic violations. There are no data to show that traditional public awareness methods result in improved CMV safety or improved adjudication.

Performance Objectives:

- To develop a multi-pronged approach to increasing the understanding of the general public and other stakeholders (e.g. state DOT) having a vested interest in improving the ability of passenger vehicles and large commercial vehicles (trucks) to safely share the roadway.
- Reduce high-risk driving behaviors among drivers of both passenger vehicles and CMVs.

Performance Measures:

- The number and range of activities engaged in for the purpose of improving the public’s awareness of CMV safety

Strategies:

- Strategy 1 – Develop face-to-face opportunities to provide information to members of the community on the risks of operating around large trucks.
Activities to Support Strategy – Conduct No-Zone training for schools and other community organizations

Increase CMV awareness training opportunities within the NCSHP and other law enforcement agencies

Performance Measures – Number of audiences contacted, Number of attendees

- Strategy 2 – Maximize the development and use of web-based information dissemination strategies.

Activities to Support Strategy – Maintain HSRC ‘truck safety in North Carolina’ website, to include continued availability of CMV ‘Crash Tool’ and the HSRC/ITRE GIS website.

Performance Measures – Continued maintenance of HSRC web site; number of ‘hits’ on site

- Strategy 3 – Attempt to reach out to other agencies (design community of NCDOT, local law enforcement, Administrative Office of Courts, and judicial community through participation on NC Governor’s Executive Committee on Highway Safety

Activities to Support Strategy – Provide strong participatory presence on Governor’s Executive Community for Highway Safety in terms of CMV operations and safety.

Performance Measures – Attendance on Speed and Aggressive Driving working groups of the NC Governor’s Executive Committee on Highway Safety, Proposals made/adopted for Executive Committee support of CMV safety initiatives.

Monitoring:

- Quarterly monitoring of public awareness/outreach activities at the troop level.
- “Hits” on HSRC’s Truck Safety in NC website.
- Progress toward CMV safety activities sponsored by NC Gov Executive Committee on Highway Safety
- Participating in regularly occurring events (e.g. NC State Fair)
- Participation in CMV safety activities sponsored by NC Trucking Association
- Participation/presentation at local and national industry meetings

National Specific Program Element

(In Support of Compliance Reviews National Goal)

Problem Statement / Justification:

Compliance Reviews –The North Carolina State Highway Patrol requested and received sixteen (16) new civilian positions as auditors (investigators). The concept was to train the new personnel and replace the current troopers with the new civilian auditors. This has allowed the troopers to return to their law enforcement duties of conducting inspections and enforcing traffic laws on CMV's. The training request is included in the training section of the CVSP. These sixteen (16) positions and one (1) coordinator position will be paid from the New Entrant Grant Budget. Currently (15) auditors and (1) coordinator have been trained and are certified by FMCSA to conduct investigations, inspections and compliance reviews (CR's) on motor carriers. Also, NC MCES along with NC DMV Registration began to implement the PRISM program with FMCSA and began assigning USDOT numbers to interstate and intrastate carriers. NC MCES had planned to begin conducting CR's on intrastate carriers in January of 2004; however at the request of FMCSA, NC MCES auditors began working primarily on conducting **New Entrant Reviews**. During FY 2006 (October through July), MCES auditors conducted 6 CR's, 340 New Entrant Reviews, for FMCSA.

Performance Objectives:

- Increase the number of compliance reviews to maintain certification during the current FY and re-evaluate the program for FY 2007.

Performance Measures:

- Increase the number of annual compliance reviews.
- Train the civilian auditors to conduct compliance reviews.

Strategies:

- Strategy 1 – CR Enforcement

Activities to Support Strategy – Conduct CR's on carriers, motor carriers, motor coach carriers and H.M. carriers identified by FMCSA priority list

Performance Measures – Number of CR's conducted

- Strategy 2 – Compliance Enforcement

Activities to Support Strategy – Conduct New Entrant Reviews based of schedule from FMCSA, Perform educational and technical assistance to carriers upon request

Performance Measures – Number of N.E. reviews conducted

Monitoring:

The five (5) CR certified officers will be monitored by their respective field Sergeants and by the staff at the NCSHP Training Academy to ensure they maintain certification as required by 49 CFR part 385.201(a) and 385.203.

VII. Budget

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Table

A. Budget Summary (350.213 (k))

B. Budget (350.213 (j))

A: BUDGET SUMMARY

Funding In Each

National Program Element **FY 07 Basic Grant**

1.Driver/Vehicle Inspections - **\$5,006,929**

Includes all salaries except New Entrant Auditors, one half Motor vehicle operation cost, training, one half uniform cost, one third cost on lease buildings

2.Traffic Enforcement-\$764,467

Includes one half motor vehicle operation cost, one half uniform cost, 19 Tahoe vehicles and equipment cost, and one third cost on lease buildings

3. Compliance Reviews-\$0.00

Cost reflected in New Entrant Audit Budget

4. Data Collection- \$67,094

Consist of data equipment service contracts and repairs, and travel and per diem to attend CVSP planning session and Safetynet Workshop, data processing disk, one third cost on lease buildings .

5. Public Education **& Awareness-\$5,598.00**

Includes Truck safety promotional items

B: BUDGET

VIII. State Laws and Regulations Compatibility

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- A. Annual review of State Laws and Regulations (350.213 (l))**
- B. New Laws or Regulations affecting the CVSP (350.213 (m))**

(Annual Review of State Laws and Regulations) (350.213 (l))

Review of existing State Laws shows that all laws are compatible with CFR Part 350 with the exception of the State Seat Belt law for intra-state commercial drivers. Legislation has been introduced and passed the N.C. General Assembly to remove the exemption for intra-state commercial drivers which will make the state law and federal rule compatible.

(New Laws and Regulations Affecting the CVSP) (350.213.(m))

New legislation passed allowing MCES to place carrier vehicles out of service for failure to have proper insurance and/or operating authority issued by FMCSA

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- F. FY07 Incentive Grant**
- G. FY07 New Entrant Grant**

STATE CERTIFICATIONS

DESIGNATION OF MCSAP LEAD AGENCY BY GOVERNOR

The State has designated the North Carolina Department of Crime Control and Public Safety, State Highway Patrol, Motor Carrier Enforcement Section as the lead agency to administer the enforcement plan for which the grant is being awarded and the jurisdictional authority to perform functions under this plan. This agency has the legal authority, resources, and qualified personnel necessary for enforcement of the State's commercial motor carrier and hazardous materials safety rules and regulations.

Governor _____

Date _____

Motor Carrier Safety Assistance Program

The North Carolina Department of Crime Control and Public Safety, State Highway Patrol, Motor Carrier Enforcement Section hereby applies to the Federal Highway Administration for a Federal grant authorized in Title IV of the Surface Transportation Assistance Act of 1982 (P. L. 97-424) and subsequent amendments thereto to enhance a Commercial Motor Carrier Safety Program as described in this application.

☒ The State Agency plans to carry out the implementation of a Motor Carrier Safety Assistance Program during Federal fiscal year (FY) 2007 as described in the State Enforcement Plan.

☐ The State Agency plans to carry out special projects of the Motor Carrier Safety Assistance Program not contained in the Basic/Supplemental grant during Federal fiscal year (FY) as described in the attached plan.

The Federal share will not exceed 80 percent of the total participating costs, unless otherwise indicated herein, incurred in performing the effort described in the attached State Plan. The State agrees to submit vouchers for the reimbursement of funds expended.

Bryan E. Beatty

Secretary

NC Dept. of Crime Control & Public Safety

Department

512 N Salisbury Street

(Address or P.O. Box)

(Signature)

Secretary – NC Crime Control and Public Safety

(Title)

Raleigh, North Carolina 27697

(City, State & Zip Code)

919-733-2126

(Phone Number)

(Date)

STATE CERTIFICATION (App. B, Part 350)

I, **Bryan E. Beatty, Secretary of the N.C. Department of Crime Control and Public Safety**, on behalf of the State of **North Carolina**, as requested by the Administrator as a condition of approval of a grant under the authority of 49 U.S.C. 31102, as amended do hereby certify as follows:

1. The State has adopted commercial motor carrier and highway hazardous materials safety rules and regulations, which are/will be substantially similar to and consistent with the Federal Motor Carrier Safety Regulations and the Federal Hazardous Materials Regulations (A copy of the existing/proposed state rules and regulations to be attached in the first year of the program.) Last date of adoption was 1983 through the N.C. Administrative Codes.
2. The State has designated the **North Carolina Department of Crime Control and Public Safety, State Highway Patrol, Motor Carrier Enforcement Section** as the lead agency to administer the enforcement plan for which the grant is being awarded, and the **North Carolina Department of Crime Control and Public Safety, State Highway Patrol, Motor Carrier Enforcement Section** to perform functions under the plan. The **North Carolina Department of Crime Control and Public Safety, State Highway Patrol, Motor Carrier Enforcement Section** has the legal authority, resources and qualified personnel necessary for the enforcement of the State's commercial motor carrier and highway hazardous materials safety rules and regulations.
3. The State will obligate the funds or resources necessary to provide a matching share to the federal assistance provided in the grant to administer the plan submitted and to enforce the state's commercial motor carrier safety, driver, and hazardous materials laws or regulations in a manner consistent with the approved plan.
4. The laws of the State provide the State's enforcement officials right of entry and inspection sufficient to carry out the purposes of the CVSP, as approved, and provides that the State will grant maximum reciprocity for inspections conducted pursuant to the North American Standard Inspection Procedure, through the use of a nationally accepted system allowing ready identification of previously inspected commercial motor vehicles.
5. The State requires that all reports relating to the program be submitted to the appropriate agency or agencies, and the state will make these reports available, in a timely manner, to the FMCSA on request.
6. The State has uniform reporting requirements and uses FMCSA designated forms for record keeping, inspection, and other enforcement activities.
7. The State has in effect a requirement that registrants of commercial motor vehicles declare their knowledge of the applicable Federal or State commercial motor carrier safety laws or regulations.
8. The State will maintain the level of its expenditures, exclusive of Federal assistance, at least at the level of the average of the aggregate expenditures of the State and its political subdivisions during State or Federal fiscal

years 1997, 1998, and 1999). These expenditures must cover at least the following four program areas, if applicable:

- a. Motor Carrier Safety Programs in accordance with 49 CFR 350.301
- b. Size and Weight Enforcement programs
- c. Traffic Safety
- d. Drug Interdiction Enforcement Programs.

9. The State will ensure that commercial motor vehicle size and weight enforcement activities funded with MCSAP funds will not diminish the effectiveness of other commercial motor vehicle safety enforcement programs.
10. The State will ensure that violation fines imposed and collected by the State are consistent, effective and equitable.
11. The State will ensure it has a program for timely and appropriately correction of all violations discovered during inspections conducted using MCASP funds.
12. The State will ensure that the CVSP, data collection, and information systems are coordinated with the State Highway Safety Program under Title 23, U.S.C. (The name of the Governor's highway safety representative or other authorized State official through whom coordination was accomplished) is: Mr. Bill Stout, Deputy Director, (CVSP and SHSP coordination contact) Governor's Highway Safety Program , 215 East Lane Street, Raleigh, NC 27601 919-733-3083
13. The State participates in SafetyNet and ensures information is exchanged with other States in a timely manner.
14. The State has undertaken efforts to emphasize and improve enforcement of state and local traffic laws as they pertain to commercial motor vehicle safety.
15. The State ensures it has departmental policies stipulating that roadside inspections will be conducted at locations that are adequate to protect the safety of drivers and enforcement personnel.
16. The State will ensure that requirements relating to the licensing of CMV drivers are enforced, including checking the status of CDL's.
17. The State or local recipient of MCSAP funds will certify that it meets the minimum Federal standards set forth 49 CFR part 385, Subpart C, for training and experience of employees performing safety audits, compliance reviews, or driver/vehicle roadside inspections.

18. The State will enforce registration requirements under 49 U.S.C. 13902; 49CFR Parts 356 and 365; and 49 CFR 392.9(a) by placing out of service a vehicle discovered to be operating without registration or beyond the scope of its registration. In the absence of appropriate authority to enforce such registration requirements, the State will demonstrate that it has made substantial progress toward obtaining legislative authority consistent with 49 CFR 350.331(d) to allow enforcement as soon as possible.
19. The State will enforce financial responsibility requirements under 49 U.S.C. 13906, 31138, 31139, and 49 CFR Part 387. In the absence of appropriate authority to enforce such insurance requirements, the State will demonstrate that it has made substantial progress toward obtaining legislative authority consistent with 49 CFR 350.331(d) to allow enforcement as soon as possible.

North Carolina Department of Crime Control and Public Safety

Date _____

Signature _____
Bryan E. Beatty – Secretary

ANNUAL CERTIFICATION OF COMPATIBILITY

In accordance with 49 CFR, Parts 350 and 355, I do hereby certify the **State of North Carolina, Department of Crime Control and Public Safety, State Highway Patrol, Motor Carrier Enforcement Section** compatibility with appropriate parts of the Federal Motor Carrier Safety Regulations (FMCSR's) and the Federal Hazardous Material Regulations (FHMRS) is as follows:

INTERSTATE MOTOR CARRIERS

All regulations are compatible with the exception of the requirement for commercial vehicle driver's requirement to wear seatbelts. NC General Statutes 20- 135.2A(c)(4) states" This section shall not apply to any of the following" (4) Any vehicle registered and licensed as a property-carrying vehicle in accordance with G.S. 20-88, while being used for agricultural or commercial purposes;" Current legislation is pending in the N.C. General Assembly to change this law and make it mandatory for CMV Drivers to wear seatbelts.

INTRASTATE MOTOR CARRIERS

All regulations are compatible with the exception of the requirement for commercial vehicle drivers requirement to wear seatbelts. NC General Statutes 20- 135.2A(c)(4) states" This section shall not apply to any of the following" (4) Any vehicle registered and licensed as a property-carrying vehicle in accordance with G.S. 20-88, while being used for agricultural or commercial purposes;" Current legislation is pending in the N.C. General Assembly to change this law and make it mandatory for CMV Drivers to wear seatbelts.

Dated this _____ day of _____, 2006

Bryan E .Beatty – Secretary
N. C. Department of Crime Control
And Public Safety

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MCSAP CONTACTS

MCSAP Contacts

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FY 07

Incentive Grant

NORTH CAROLINA DEPARTMENT OF CRIME CONTROL AND PUBLIC SAFETY
State Highway Patrol
Motor Carrier Enforcement Section

Commercial Vehicle Safety
Incentive Funding Grant
FY 2007

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- A. Executive Summary

II. Problem Statement & Solution Statement

III. Budget

- A. Summary – Grouped by National Program Elements
- B. Line Item

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- A. State Certification, (Part 350.211)
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- C. MCSAP Contact Information

I. Program Overview

A. Agency Mission

The mission of the North Carolina State Highway Patrol is to ensure safe, efficient transportation on our streets and highways, reduce crime, protect against terrorism, and respond to natural and man-made disasters. This mission is accomplished in partnership with all levels of government and the public, with high ethical, legal, and professional standards. Our vision is to set the standard for law enforcement.

B. Program Overview

In January 2003, the Highway Patrol absorbed 364 positions from the previous lead agency for the MCSAP agency, the North Carolina Department of Transportation's Division of Motor Vehicles Enforcement (DMV). This merger did transfer all elements of North Carolina's Motor Carrier Safety Assistance Program (MCSAP) over to the Highway Patrol. Commercial Motor Vehicle Enforcement is now administered through the Highway Patrol's "Motor Carrier Enforcement Section," (MCES).

Beginning in January of 2004, this transition of MCES positions began to include a transition school. The purpose of the transition school is to bring MCE employees up to address inequities among pay, ranks, and level of arrest authority. Upon completion of a transition school, graduating members of the MCES enjoy identical pay, rank, and arrest authority as their counterparts—the original 1,445 sworn Highway Patrol positions that existed prior to the merger with DMV. Each class incorporates approximately 30 employees of the MCES. Each class lasts 8 weeks, and is preceded by a three-day orientation that takes place eight weeks before the school begins. The eight week program is a residential program so the students are housed at the Patrol's training academy during the week for 8 weeks. As of July 1st 2006, eight transition schools have been completed. 176 MCE officers have become full-fledged State Troopers, with the same arrest authority and pay as their NCSHP counterparts. MCES employees will continue to focus on commercial vehicle traffic. After finishing the transition school, however, MCE Officers share the same jurisdiction as State Troopers have always had.

During the first eight transitional schools, the 176 graduates lost a combined 2,478 pounds! Additional fitness improvements were measured, using the Cooper Fitness Scale. The average starting Physical Fitness level was 39.18%; the average finished physical fitness level was 62.12%. Significant improvements were achieved during each school's physical training program.

The absorption of the positions from DMV is enabling the Highway Patrol to serve the state as the lone agency responsible for enforcing highway safety laws and regulations for privately-owned vehicles and for commercial traffic.

North Carolina's highway system boasts more than 99,000 road miles—the second-highest number of road miles in the nation. Interstates 26, 77, 85, and 95 provide north-south routes throughout our state, while Interstate 40 provides an east-west track from Wilmington and the Atlantic Coast to Asheville and points west along the Smoky Mountains in Appalachia. These interstate routes, combined with US Highways and State Roads, help to make North Carolina a major hub for commercial vehicle traffic.

Since the inception of the MCSAP Program, and continuing into the present day, considerable emphasis continues to be placed upon commercial vehicle inspections, size and weight enforcement, and driver compliance issues to reduce the frequency and severity of commercial motor vehicle collisions. Our aggressive enforcement campaigns promote self-policing on the part of the trucking industry, as well as CMV-related associations such as the Forestry Association, the NC Trucking Association, and the NC Manufactured Housing Authority. The Highway Patrol's Motor Carrier Enforcement Section also works closely with local law enforcement agencies, the Governor's Highway Safety Program, and other highway safety partners and customers to further North Carolina's commitment to the safe and efficient transport of the motoring public in our state.

The State of North Carolina further commits to maintaining its core MCSAP program elements, which include uniform driver and vehicle compliance standards. These standards are enforced through regular safety inspections, enforcement programs, and public awareness and education programs.

III

Problem Statement

PROBLEM STATEMENT

In order to effectively continue support to NCSHP **Motor Carrier Safety Assistance Program** (MCSAP), NCSHP has a need to continue the use of Dr. Ronald Hughes and the North Carolina State University (NCSU) Institute for Transportation Research and Education (ITRE). Through the partnership of the North Carolina State Highway Patrol and NCSU, ITRE provides the Motor Carrier Enforcement Section with data analysis and program evaluation of our traffic safety programs, including the MCSAP agenda. ITRE implements extensive GIS-based examinations of commercial vehicle enforcement activities, which are essential to the continued development of state-based initiatives and program elements. ITRE's ongoing analysis of the relationship between enforcement and mission effectiveness are valuable assets in the program's adoption and the execution of our Commercial Vehicle Safety Plan (CVSP). With the approval of the 2007 CVSP, the NC State Highway Patrol's Motor Carrier Enforcement Section will continue this partnership with ITRE as it has proven to be a valuable resource in our commercial motor vehicle safety programs. Using the Highway Patrol's internal Computer Aided Dispatch (CAD) data would limit our data analysis to only those incidents investigated by our agency. ITRE provides our program with a professional, third-party perspective that includes data from all CMV-related incidents that are reported anywhere within North Carolina, regardless of which agency investigates the incidents in question. Due to increased personnel (MCSAP Trooper Positions) and salary increases by legislation, the MCSAP Basic Budget has been mostly consumed with salary cost.

Other areas of concern for North Carolina inspection data are based on A & I data. North Carolina is a "RED" state in the following areas: crash completeness, crash timeliness, inspections timeliness and crash accuracy. The North Carolina State Highway Patrol is not the keeper of the crash data, however, the North Carolina State Highway Patrol is working with the FMCSA State office and the North Carolina Division of Motor Vehicles to resolve the crash data problem areas.

Realizing the vast amounts of hazardous materials transported through North Carolina each year and the fact that North Carolina has three major petroleum pipelines through out the state, and one major LP pipeline located in the State Capitol area of the state, the MCES Administration identified a lack of H.M. inspections conducted during FY 2004 and 2005. An emphasis was put on this area of inspection and during FY 2006 (October through July), MCES officers inspected 1,879 hazardous material shipments. A primary tool used daily by the H.M. certified Troopers is the Haz-Mat Trucker software. This has been tested

and proven to be very valuable for roadside inspectors. This software allows the roadside inspector to determine quickly if the HM being transported is compatible and if the proper placards, labels, markings and packaging are with in regulations for the commodity.

Due to increased personnel being paid from the basic MCSAP Grant and the cost of living increases provided by the NC General Assembly during FY 06, the North Carolina State Highway Patrol will use Incentive funds to purchase general office supplies, postage, cell phone and pager cost for the MCSAP.

RECOMMENDED SOLUTION

Funding for the contracted services provided by NCSU and ITRE will be paid with Incentive Grant Funds and incorporated into the Basic MCSAP Grant.

The North Carolina State Highway Patrol will provide to the North Carolina Division of Motor Vehicles (DMV) funding for two personnel to sort, review, and enter CMV related crashes in order to meet the mandate of the 180 day approved entry.

Funding to continue to usage of the Haz-Mat Trucker software will be from the Incentive Gant Funds due to lack of funds available from the Basic MCSAP Grant.

Funding of basic office supplies, postage, cell phones and pagers.

Budget Summary

Budget

New Entrant Grant

**State of North Carolina
FY 07
New Entrant Grant**

Problem Statement

Congress passed a bill which requires the Federal Motor Carrier Safety Administration (FMCSA) to establish minimum requirements for new motor carriers seeking federal interstate operating authority. These minimum requirements include having the carrier certify that it has systems in place to ensure compliance with the Federal Motor Carrier Safety Regulations. In addition, Congress required that a safety audit must be conducted within the first 18 months of the carrier's interstate operation. This also required that beginning January 1, 2003, all new motor carriers (private and for-hire) operating in interstate commerce must apply for registration (USDOT Number) as a "new entrant".

Due to the nature of this bill and the fact that North Carolina registers approximately 1500 new carriers each year, and the fact the North Carolina FMCSA office has limited resources, it is unrealistic that the FMCSA can meet the requirements set forth by Congress without assistance from the State.

Solution Statement

The North Carolina State Highway Patrol currently has sixteen (16) civilian positions (referred to as auditors) dedicated to conducting New Entrant Audits in order to assist the FMCSA with the New Entrant Congressional mandate. These auditors have been trained in accordance with FMCSA standards and have been through field training (OJT) with investigators of the FMCSA. These auditors are located through out the State and conduct New Entrant safety audits which consist of a review of the carrier's safety management system. The areas of review include, but are not limited to, the following:

- Driver Qualifications;
- Driver Duty Status;
- Vehicle Maintenance;
- Accident Register; and
- Controlled Substances and Alcohol use and testing requirements

In addition to the 16 auditor positions, the State has one coordinator to work closely with the FMCSA Federal & State Program Specialists and provide scheduling of assignments, assurance of accuracy in data

submitted (safety reviews) and act as a liaison between the auditors and the FMCSA personnel.

Program Activities and Needs

The North Carolina State Highway Patrol has sixteen (16) civilian positions as auditors (investigators) and one Civilian position as a coordinator. These sixteen (16) positions and one (1) coordinator position are dedicated 100% toward New Entrant Audits and Compliance Reviews.

Currently (15) auditors and (1) coordinator have been trained and are certified by FMCSA and CVSA to conduct investigations and CMV inspections. During FY 07, these auditors will become certified in HM, Cargo Tank and Motor Coach inspections. Once this training is complete and certified, the State will begin the process with FMCSA to have these persons become Compliance Review certified. During FY 2002, NC MCES uniform auditors began performing CR's on interstate carriers. Also, NC MCES along with NC DMV Registration began to implement the PRISM program with FMCSA and began assigning USDOT numbers to interstate and intrastate carriers. NC MCES had planned to begin conducting CR's on intrastate carriers in January of 2004, however at the request of FMCSA, NC MCES auditors began working primarily on conducting **New Entrant Reviews**. During FY 2006 (October through July), MCES auditors conducted 6 CR's, and 340 New Entrant Reviews, for FMCSA.

Funding for the new auditors and the coordinator position will be 100% from the New Entrant Program Grant. This will include salaries, benefits, training and training materials, office equipment and supplies, transportation cost, uniforms and equipment (for CMV inspections) data processing equipment and cell phones.

Vehicles for the auditors were purchases in the FY 06 grant. .

The North Carolina State Highway Patrol is requesting 100% Federal Funding to support this program for FY 2007. The total program cost is expected to be \$????????????

Budget Summary

Budget

APPENDIX C

GOVERNOR'S HIGHWAY SAFETY PROGRAM SAFETY PLAN

Problem Identification and Promising Solutions for the Annual Highway Safety Plan

Submitted by

North Carolina Governors Highway Safety Program

August, 2006

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EXECUTIVE SUMMARY

Each year, the NC Governor's Highway Safety Program (GHSP) prepares a Highway Safety Plan (HSP) as a guide for the State's federally funded safety activities. A major component in the production of this document is the identification of safety problems within the state through an analysis of crash data. The results of this problem identification effort are then used as one means of justification for determining where safety improvement funds are spent. With the available funding for safety improvements and programs diminishing, it is critical that such funding be carefully allocated to have the greatest impact on safety.

The objective of this report is to help GHSP in the identification of safety problems within the state. Here is a summary of the findings:

Overall trends in crashes by severity in North Carolina

- Fatality rates (fatalities per 100 MVM) in North Carolina have been decreasing in the last 10 years. However, the number of fatalities has remained somewhat steady.
- During the last 3 years, the total number of injury and fatal crashes has not changed significantly. However, the number of reported property damage only (PDO) crashes has increased significantly.

Alcohol-involved crashes

- During the last 3 years, there has been a decline in both the total number of drinking drivers in crashes and the percent of all-crash involved drivers who had been drinking.
- The 21-24 age group is associated with the highest percentage of drivers who had been drinking while being involved in a crash.
- Hispanic/Latino drivers have the highest rate of drinking while being involved in a crash. Part of the reason for their high rate is that the North Carolina Latino population is largely male and young – the primary group of drinking drivers in all racial/ethnic groups.
- Crashes involving drinking and driving is most common during early morning hours.
- About 54% of drinking driver crashes occurred on rural roadways.

Young driver crashes

- Crashes involving drivers age 15-20 have increased in the last 3 years, but this can completely be explained by population growth. There has been very little change in the severity of crashes during this period.

- Among young drivers, the driver did something to contribute to the crash in 68% of all crashes, while only 48% of drivers age 25-54 contributed to their crash. A substantial proportion of young driver errors are accounted for by three actions: failure to yield, failure to reduce speed appropriately, and driving too fast for conditions.
- Alcohol involvement by crash-involved young drivers, all of whom are under the legal drinking age, is lower than for all age groups up to age 50.

Motorcycle safety

- The number of motorcycle crashes has been increasing for about 5-years along with the North Carolina population and number of registered motorcycles.
- The typical motorcycle crash occurs between April and October on a Friday, Saturday, or Sunday between 12:00 noon and 7:00 p.m. during clear weather on a rural two-lane state secondary road with a 55 MPH speed limit.
- Curved roadway crashes are overrepresented in motorcycle crashes and are associated with greater risk for fatal/severe injury than crashes straight roadway segments.
- Rollovers, hitting a fixed object, rear-ending another vehicle, the motorcyclist or another vehicle making a left/right turn, and running off the roadway are the most harmful precipitating events of motorcycle crashes.
- Fatal/severe injury to the motorcyclist was strongly associated with head-on crashes, hitting a fixed object, left/right turns, and leaving roadways.

Pedestrian safety

- Although crashes involving pedestrians represent less than 1% of the total reported motor vehicle crashes in North Carolina, pedestrians are highly over-represented in fatal and serious injury crashes. Approximately 12% of the fatal crashes and 9% of A-type (disabling injury) crashes in North Carolina involved pedestrians.
- Pedestrian crashes are most likely to occur in the afternoon and early evening between the hours of 2 pm to 6 pm and 6 pm to 10 p.m., with over half of pedestrian crashes occurring during these eight hours.
- While most crashes (55%) occurred during clear or cloudy weather *and* under daylight conditions, 18% occurred during night-time on lighted roadways (clear or cloudy) and another 15% occurred during night-time on unlighted roadways (clear or cloudy conditions).

- The 51 to 60 year group has shown numerical and proportional increases in the pedestrian crashes each of the three years while the 26 to 30 year group has shown a decline. On average, older teens (16 to 20) and young adults (21 to 25) accounted for greater numbers and proportions of pedestrian crashes than other groups. However, the proportions of those killed and seriously injured in a pedestrian crash is higher for the older age groups.
- Blacks are over-represented in pedestrian crashes, and Whites are under-represented based on the population. However, there appears to be a decreasing trend in the proportion of crashes involving black pedestrians.
- The most frequent crash type involves *Pedestrian failure to yield*. It should be pointed out, however, that this crash type does not necessarily imply fault. For example, a pedestrian may detect a gap at a mid-block area and begin crossing, but a speeding motorist closes the gap sooner than expected and strikes the pedestrian.

Bicyclist safety

- Bicyclists represent less than 0.5% of the total reported motor vehicle crashes in North Carolina, but represent 1.5% of the fatal crashes, and 2% of A-type (disabling injury) crashes.
- The number of bicyclist crashes has fluctuated over the past 3 years, but no obvious trend is apparent over this time.
- Bicyclist crashes peak on Friday and Saturday.
- While most crashes (74%) occurred during clear or cloudy weather and under daylight conditions, 17% occurred during night-time on lighted or unlighted roadways (clear or cloudy conditions).
- There seems to be an increasing in the number of bicycle crashes involving adults ages 40 to 69, and a decreasing trend among children up to age 15. It is not clear if this may be due to changes in riding patterns among the different age groups and/or change in the population of the specific age groups.
- The most frequent crash type (about one-fifth of bicycle-motor vehicle crashes), involved *Sign-controlled intersection* violations by bicyclists and motorists.
- Children were most often involved in *mid-block ride out* crashes, more typically occurring in urban areas.

Older driver safety

- The number of crash-involved older drivers has shown only modest increases over the past 3 years. Although drivers ages 65+ make up only 7.5% of the crash-involved driver population, they comprise 15% of fatally-injured drivers.
- Nearly one in five drivers killed in crashes in the western Mountain region of the state is age 65+. As the North Carolina population ages, this proportion will rise, not only in western North Carolina but in all parts of the State.
- For the most part, older driver crashes tend to mimic the locations and situations where older adults drive, (i.e., on shorter trips, lower speed roadways, about town, during the daytime, under favorable weather conditions, etc.).
- Drivers ages 65+ are more likely to crash while making a left turn, and the crash risk increases along with their age.
- Older drivers are more likely to be cited for contributing to their crash, with the most commonly cited contributing factor being failure to yield to other traffic.

Speed-related crashes

- Speed-related PDO crashes have increased substantially in the last two years. However, the number of injury and fatal speed-related crashes has changed very little during this period.
- Speed-related crashes are in general more severe compared to non-speed-related crashes.
- A higher percentage of crashes in rural areas are speed-related compared to urban areas.
- The 16-17 age group is associated with the highest percentage of speed-related crashes.
- A large number of speed-related crashes occur during the morning peak, the afternoon peak, and between 1:00 and 3:00 a.m.
- Interstates have the lowest number of speed-related crashes, but the highest percentage of speed-related crashes. Local streets have the highest number of speed-related crashes, but the lowest percentage of speed-related crashes.
- Close to 80% of crashes where a rear-end crash was the first harmful event, are speed-related. A significant percentage of crashes (close to 50%) where the first harmful event is a Jackknife/Overturn/Rollover, collision with a fixed object, or ran-off-the-road, are speed-related.

Occupant restraint

- Following the enactment of a primary enforcement seat-belt law and the “Click It or Ticket” campaign, the observed driver seat belt usage rate has increased from approximately 65% in the early 1990’s to 88.5% in 2006.
- The latest survey of seat-belt usage was conducted during Memorial Day 2004. The estimated usage rate at that time was 88.9% of drivers and 86.3% for passengers.
- A larger percentage of women use a seat belt (92%) compared to men (86.8%).
- Typically, middle-aged and older drivers have a higher usage rate compared to young drivers.
- Information on restraint usage for individuals involved in an accident is usually self-reported and not reliable, especially for less severe crashes.

Traffic Records and Data Collection

It has become very obvious during the compilation of this plan that numerous problems exist in the area of record collection and disbursement. The data for this years Highway Safety Plan has been gathered by GHSP directly from NCDOT rather than going through a third party. This has resulted in several glaring differences from prior years reporting. The overall system is being studied and modernized as a part of the activities of the Executive Committee on Highway Safety. Future years will be more accurate and will show trending in a more accurate method.

1. INTRODUCTION

The objective of this report is to help this agency in the identification of safety problems within the state. This section gives an overview of the frequency and severity of crashes in North Carolina during the last several years. In the subsequent sections, the following areas that are of primary interest to GHSP are discussed in more detail:

- Alcohol related crashes
- Young driver crashes
- Motorcycle crashes
- Pedestrian crashes
- Bicycle crashes
- Older driver crashes
- Speed-related crashes
- Occupant restraint usage

Fatalities and Fatality Rates

The fatality rates in North Carolina and Nation during the last several years are presented in Table 1.1. Fatality rates for the nation were obtained from the Fatality Analysis Reporting System (FARS) (<http://www-fars.nhtsa.dot.gov/>). For North Carolina, the number of fatalities in 2005 was obtained from NCDOT crash records. Exposure (i.e., miles traveled) for 2005 was obtained from NCDOT. Data for the prior years for North Carolina were taken from the 2003 *North Carolina Traffic Crash Facts* report.

Table 1.1: *Fatalities and fatality rates*

Year	National Rate (per 100 MVM ¹)	NC Rate (per 100 MVM)	NC Fatalities
1966	5.50	6.78	1724
1967	5.26	6.57	1751
2000	1.53	1.75	1563
2001	1.51	1.67	1530
2002	1.50	1.68	1573
2003	1.48	1.63	1525
2004	1.46	1.62	1557
2005	NA	1.53	1546

Frequency and severity of crashes during the last 3 years

Table 1.A shows the frequency and severity of crashes in North Carolina during the last 3 years. The number of injury do not seem to have changed significantly during the last 3 years, but the number of property damage only crashes (PDO) has increased significantly while the number of fatal crashes has actually decreased. This would indicate that the fatal crashes may be decreasing but the number of fatalities per crash are increasing.

Table 1.A *Crash frequency and severity in North Carolina*

Severity	Oct 02 - Sep 03	Jan 04 - Dec 04	Jan 05 - Dec 05
	Number	Number	Number
PDO	144979	145774	287261
Injury	83429	83044	83135
Fatal	1339	1423	1018
TOTAL	229747	230241	371414

Table 1.B shows the number of crashes, number of injury and fatal crashes, crash rate, and the rate of injury and fatal crashes for different counties in North Carolina. The table also highlights the 15 counties that have the highest crash rates, high rate of injury and fatal crashes, and high frequency of total crashes, and a high frequency of total injury and fatal crashes. Alamance, Buncombe, Cabarrus, Catawba, Cumberland, Durham, Forsyth, Gaston, Guilford, Iredell, Mecklenburg, New Hanover and Wake have a large number of crashes as well as high crash rates.

Table 1.B *County Rates for All, Injury/Fatal Crashes*

County	Total Crashes In County	Overall Crash Rate Per 1000 Population	Number Of Fatal/Injury Crashes IN County	Fatal/Injury Crash Rate Per 1000 Population
Alamance	6148	44.3	1339	9.6
Alexander	831	23.4	218	6.1
Alleghany	335	30.7	90	8.2
Anson	866	33.5	234	9.1
Ashe	876	34.7	198	7.8
Avery	479	26.3	117	6.4
Beaufort	1832	39.8	481	10.4
Bertie	627	31.8	191	9.7
Bladen	1096	33.0	423	12.7
Brunswick	3280	37.4	829	9.5
Buncombe	9011	41.4	2217	10.2

Burke	3347	37.6	830	9.3
Cabarrus	6971	46.4	1503	10.0
Caldwell	2718	34.5	694	8.8
Camden	237	26.7	63	7.1
Carteret	2266	36.3	496	7.9
Caswell	499	20.9	145	6.1
Catawaba	7574	50.7	1607	10.8
Chatham	1938	34.4	440	7.8
Cherokee	707	27.1	223	8.6
Chowan	346	23.8	94	6.5
Clay	268	27.3	80	8.2
Cleveland	3618	37.0	890	9.1
Columbus	2043	37.4	703	12.9
Craven	3052	33.1	688	7.5
Cumberland	14268	45.6	3340	10.7
Currituck	677	29.9	159	7.0
Dare	1699	48.3	323	9.2
Davidson	5674	36.7	1447	9.3
Davie	1210	31.3	264	6.8
Duplin	1973	37.8	522	10.0
Durham	14737	60.8	2610	10.8
Edgecombe	1770	33.1	464	8.7
Forsyth	14938	46.1	3028	9.3
Franklin	1523	28.1	445	8.2
Gaston	9206	47.8	2339	12.1
Gates	362	32.7	128	11.6
Graham	260	32.1	121	14.9
Granville	1441	26.7	365	6.8
Greene	615	30.3	172	8.5
Guilford	21192	48.3	4780	10.9
Halifax	1876	33.3	448	8.0
Harnett	3056	30.0	854	8.4
Haywood	1688	29.6	454	8.0
Henderson	4039	41.3	844	8.6
Hertford	825	34.6	236	9.9
Hoke	1001	25.1	386	9.7
Hyde	131	23.4	29	5.2
Iredell	6545	47.0	1571	11.3
Jackson	1311	36.2	343	9.5
Johnston	5804	39.8	1430	9.8
Jones	380	37.2	113	11.1
Lee	2690	53.3	526	10.4
Lenoir	2270	38.9	709	12.1
Lincoln	2723	39.4	685	9.9

Macon	998	30.9	297	9.2
Madison	408	20.0	115	5.6
Martin	732	29.8	180	7.3
McDowell	1121	25.7	315	7.2
Mecklenburg	45620	58.0	9391	11.9
Mitchell	482	29.9	133	8.3
Montgomery	717	26.3	200	7.3
Moore	2792	34.7	747	9.3
Nash	3885	42.4	1040	11.4
New Hanover	10964	61.7	2387	13.4
Northampton	621	28.9	195	9.1
Onslow	6404	39.5	1277	7.9
Orange	4584	37.4	705	5.8
Pamlico	309	23.5	91	6.9
Pasquotank	1552	40.7	305	8.0
Pender	1823	39.5	483	10.5
Perquimans	272	22.8	76	6.4
Person	1301	34.8	292	7.8
Pitt	6481	45.2	1506	10.5
Polk	485	25.3	125	6.5
Randolph	4898	35.7	1180	8.6
Richmond	1456	31.3	528	11.4
Robeson	4949	38.8	1550	12.2
Rockingham	2870	31.1	735	8.0
Rowan	5350	39.9	1222	9.1
Rutherford	2036	32.1	551	8.7
Sampson	2218	35.0	666	10.5
Scotland	840	22.7	349	9.4
Stanly	1936	32.6	481	8.1
Stokes	1216	26.3	335	7.2
Surry	2550	35.1	663	9.1
Swain	345	25.4	124	9.1
Transylvania	891	29.8	188	6.3
Tyrrell	179	42.8	37	8.9
Union	6207	39.3	1232	7.8
Vance	1791	40.6	410	9.3
Wake	38932	52.2	6515	8.7
Warren	458	22.7	117	5.8
Washington	358	26.7	89	6.6
Watauga	2237	52.1	410	9.5
Wayne	4337	37.5	1157	10.0
Wilkes	2279	33.8	607	9.0
Wilson	3207	41.6	838	10.9
Yadkin	1094	29.3	280	7.5

Yancy	380	20.9	101	5.6
State Total	371414	42.9	84153	9.7

2. ALCOHOL-INVOLVED CRASHES

Driving after drinking continues to be one of the major causes of motor vehicle crashes in North Carolina as well as the U.S. as a whole. As shown in Table 2.A, both the total number of drinking drivers in crashes and the percent of all crash-involved drivers who had been drinking have remained somewhat steady over the last four years with a slight decrease in 2004 as compared to 2001.

Table 2.A: *Number and percentage of drivers involved in crashes judged to have been drinking- by year*

	Number of Drinking Drivers	Total Driver Crashes	Percent of Drinking Drivers
Oct 2000 - Sep 2001	14,119	369,894	3.82%
Oct 2001 - Sep 2002	12,952	372,426	3.48%
Oct 2002 - Sep 2003	10,944	384,447	2.85%
Jan 2004 - Dec 2004	11,376	381,183	2.98%
Jan 2005 - Dec 2005	10986	371,414	2.96%

Demographic Difference in Alcohol Use by Drivers

Driver Age

Alcohol use is strongly related to age and that is also seen in drinking by crash-involved drivers. The very youngest drivers have very low levels of alcohol use, but the prevalence of drinking among crash-involved drivers increases sharply with each year of age to a peak among the 21-24 year-old age group. As is seen in Table 2.B, the likelihood a crash-involved driver has been drinking drops again by age 25 and then declines until reaching a stable, relatively low level among drivers 60 and older.

Table 2.B *Table of Age of Driver*
Driver Alcohol Assessment

Age	No Alcohol		Alcohol		Total
	Number	Percentage	Number	Percentage	
Under 16	1067	97.68%	26	2.32%	1093
16-17	18976	99.06%	182	0.94%	19158
18-20	36908	97.09%	1139	2.91%	38047
21-24	40846	95.20%	2167	4.80%	43013
25-29	41174	96.06%	1762	3.94%	42936
30-39	72521	96.77%	2508	3.23%	75029
40-49	62715	97.10%	1931	2.90%	64646
50-59	44578	98.07%	893	1.93%	45471
60 and Above	41620	99.11%	377	0.89%	41997
Unknown	23	96.00%	1	4.00%	24
TOTAL	360428	97.13%	10986	2.87%	371414

Race/Ethnicity

The use of alcohol varies substantially within the various subcultures in North Carolina and this is also apparent in the involvement of alcohol in crashes. Table 2.C shows the percent of crash-involved drivers who had been drinking by race/ethnicity. The most striking finding is the extremely high rate of drinking by Hispanic/Latino drivers. This is out of line with national data which consistently show that Native Americans have the highest rates of driving after drinking and that Hispanic/Latino rates fall in between those of Native Americans and whites.

Table 2.C
Table of Race of Driver
Driver Alcohol Assessment

Race	No Alcohol		Alcohol		Total
	Number	Percentage	Number	Percentage	
White	241327	97.18%	7005	2.82%	248332
Black	84948	97.72%	1986	2.28%	86934
Native American	2437	95.16%	124	4.84%	2561
Hispanic	22481	92.96%	1702	7.04%	24183
Asian	4316	98.83%	51	1.17%	4367
Other	3279	97.88%	71	2.12%	3350
Unknown	1640	97.21%	47	2.79%	1687
Total	360428	97.04%	10986	2.96%	371414

The explanation for the abnormally high rate among Hispanic drivers in North Carolina lies in the nature of this population subgroup. Unlike Hispanics in most other regions of the U.S., the North Carolina Latino population is composed mostly of first generation immigrants, a large number of whom have come to the state in the past decade. As such this group is largely male and young – the primary group of drinking drivers among all racial/ethnic groups. Forty-nine percent of Hispanic drivers in crashes were 20 – 29 years old, compared to 26% of blacks and 21% of whites. Thus, whereas white and black crash-involved drivers include many older drivers who are less likely to drink and drive, Hispanic drivers are mostly young males (only 2% of Hispanic drinking driver crashes were females whereas 26% of black and white drinking drivers were females).

Table 2.D *Percent of Crash-Involved Drivers Who Had been Drinking*
By Race/Ethnicity and Age (Jan 2005 through Dec 2005)

	White	Black	Nat Amer	Hispanic	Asian	Other	Unknown
15-20	2.22%	1.40%	3.56%	6.44%	1.55%	2.56%	1.29%
21-24	5.14%	2.91%	7.75%	9.51%	1.50%	3.08%	3.09%
25-29	3.98%	2.68%	6.47%	7.56%	1.63%	3.35%	3.92%
30-39	3.36%	2.39%	4.54%	6.49%	1.34%	2.02%	2.56%
40-49	3.07%	2.57%	5.02%	4.79%	0.85%	1.76%	4.23%
50-59	1.83%	2.27%	4.56%	2.92%	0.45%	0.63%	2.70%
60 and above	0.78%	1.29%	1.57%	4.08%	0.00%	0.00%	1.78%

Time of day, week and year of drinking driver crashes

Not surprisingly the proportions of drinking and driving are particularly high during the early morning hours. For most individuals, drinking is an evening/nighttime activity. Another issue that contributes to the sharp peak in the proportion of drivers who had been drinking is the fact that most of the general driving public is not out at that late hour. Hence, drinkers represent a greater proportion of all drivers on the road.

Driving after drinking is substantially more common among males than among females. Whereas about 4.7% of crash-involved male drivers had been drinking only 1.8% of females in crashes had been drinking. Moreover, this difference is related to driver age. Among crash-involved drivers from 18 to 30, males were 3.5 times as likely to have been drinking as females. From age 31 to 64 males were about 2.2 times as likely to be drinking and among drivers over 65, males were only 1.3 times as likely as females to have been drinking.

It is also important to consider that the actual number alcohol-related crashes are distributed very differently. Even though smaller proportions of crash-involved drivers are drinking during the early evening hours, there are far more of them on the roads than in the early morning hours. Whereas the peak times for crashes to involve a drinking driver are from 1 – 4 a.m., those three hours only account for 18% of alcohol-related crashes. Even though the rate of drinking and driving is much lower, the hours from 6 p.m. to 9 p.m. involve an equal number of alcohol-related crashes (18%) There is a spike from 2 – 3 a.m. which is explained by the fact that the bar closing time is 2 a.m.

Drinking driving by month and day of week

Despite common beliefs about the prevalence of drinking and driving, there is almost no variation in the percent of crash-involved drivers who have been drinking by month. The

lowest rate is in January (3.1%), the highest in March (3.6%) with all other months ranging from 3.3 to 3.5%. In contrast, crashes on weekends are far more likely to involve a drinking driver (6.5%) compared to weekdays/nights (2.5%). It is worth remembering, however, that the actual number of drinking-driver crashes doesn't differ nearly so much, with about 5,300 drinking driver crashes on weekdays/nights and 7,300 on weekends in each of the years examined.

Crash Characteristics among Drinking Drivers

There is a substantial folklore about the nature of drinking driver crashes, some of which is not in keeping with the reality of these crashes. A widespread belief is that drinking drivers generally crash into "innocent victims." Although such crashes do occur much too frequently, they are not the typical drinking driver crash. National data from the fatality analysis reporting system indicate that 70 – 80% of those killed in alcohol-related crashes are the drinking driver, a drinking non-occupant, or a passenger of the drinking driver, who has usually been drinking as well. It is clear that the typical drinking driver crash involves only the driver's vehicle, usually either running off the road or hitting a fixed object.

Roadway Characteristics and Location

Two-thirds (68%) of drinking driver crashes in North Carolina occur on 1- or 2-lane roadways. That is partly because crashes on 2-lane roads are more than twice as likely to involve a drinking driver (4.9% vs. 2.2% on roads with 3 or more lanes) and because more travel occurs on 2-lane roads. Similarly, 54% of all drinking driver crashes occur on rural roadways, which is also due to the fact that rural crashes are much more likely to involve a drinking driver than urban crashes (4.6% vs. 2.5%). One third of all drinking driver crashes occur on secondary routes; another third occur on local streets and the remaining third occurs on all other types of roads combined.

Drinking Driver Crashes by County

The following table, Table 2.E, illustrates the presence of alcohol in crashes by county. These further illustrate the point made above about the location of drinking driver crashes. The twelve counties with the highest rate of alcohol involvement in crashes account for only 4.36% of all drinking driver crashes in North Carolina. This is because alcohol-related crashes are much more likely in rural locations and these rural counties have less traffic, hence fewer crashes in general. In contrast, the top 10 counties in number of drinking driver crashes account for close to half (40.64%) of all drinking driver crashes in North Carolina, yet they are among the lowest in alcohol-involved crash rates (representing 6 of the 12 counties with the lowest *rates* of drinking driver crashes).

Table 2.E *Table of County by Driver Alcohol Assessment*

County	No Alcohol		Alcohol		Total
	Number	Percentage	Number	Percentage	
Alamance	5954	96.84%	194	3.16%	6148
Alexander	788	94.83%	43	5.17%	831
Alleghany	320	95.52%	15	4.48%	335
Anson	839	96.88%	27	3.12%	866
Ashe	847	96.69%	29	3.31%	876
Avery	456	95.20%	23	4.80%	479
Beaufort	1761	96.12%	71	3.88%	1832
Bertie	608	96.97%	19	3.03%	627
Bladen	1055	96.26%	41	3.74%	1096
Brunswick	3135	95.58%	145	4.42%	3280
Buncombe	8710	96.66%	301	3.34%	9011
Burke	3258	97.34%	89	2.66%	3347
Cabarrus	6795	97.48%	176	2.52%	6971
Caldwell	2613	96.14%	105	3.86%	2718
Camden	226	95.36%	11	4.64%	237
Carteret	2170	95.76%	96	4.24%	2266
Caswell	463	92.79%	36	7.21%	499
Catawaba	7337	96.87%	237	3.13%	7574
Chatham	1872	96.59%	66	3.41%	1938
Cherokee	677	95.76%	30	4.24%	707
Chowan	330	95.38%	16	4.62%	346
Clay	256	95.52%	12	4.48%	268
Cleveland	3492	96.52%	126	3.48%	3618
Columbus	1947	95.30%	96	4.70%	2043
Craven	2950	96.66%	102	3.34%	3052
Cumberland	13965	97.88%	303	2.12%	14268
Currituck	652	96.31%	25	3.69%	677
Dare	1638	96.41%	61	3.59%	1699
Davidson	5484	96.65%	190	3.35%	5674
Davie	1169	96.61%	41	3.39%	1210
Duplin	1891	95.84%	82	4.16%	1973
Durham	14445	98.02%	292	1.98%	14737
Edgecombe	1694	95.71%	76	4.29%	1770
Forsyth	14541	97.34%	397	2.66%	14938
Franklin	1452	95.34%	71	4.66%	1523
Gaston	8931	97.01%	275	2.99%	9206

Gates	341	94.20%	21	5.80%	362
Graham	247	95.00%	13	5.00%	260
Granville	1384	96.04%	57	3.96%	1441
Greene	580	94.31%	35	5.69%	615
Guilford	20667	97.52%	525	2.48%	21192
Halifax	1824	97.23%	52	2.77%	1876
Harnett	2934	96.01%	122	3.99%	3056
Haywood	1626	96.33%	62	3.67%	1688
Henderson	3933	97.38%	106	2.62%	4039
Hertford	795	96.36%	30	3.64%	825
Hoke	942	94.11%	59	5.89%	1001
Hyde	121	92.37%	10	7.63%	131
Iredell	6348	96.99%	197	3.01%	6545
Jackson	1247	95.12%	64	4.88%	1311
Johnston	5582	96.18%	222	3.82%	5804
Jones	365	96.05%	15	3.95%	380
Lee	2616	97.25%	74	2.75%	2690
Lenoir	2201	96.96%	69	3.04%	2270
Lincoln	2614	96.00%	109	4.00%	2723
Macon	949	95.09%	49	4.91%	998
Madison	394	96.57%	14	3.43%	408
Martin	709	96.86%	23	3.14%	732
McDowell	1072	95.63%	49	4.37%	1121
Mecklenburg	44636	97.84%	984	2.16%	45620
Mitchell	467	96.89%	15	3.11%	482
Montgomery	695	96.93%	22	3.07%	717
Moore	2706	96.92%	86	3.08%	2792
Nash	3771	97.07%	114	2.93%	3885
New Hanover	10672	97.34%	292	2.66%	10964
Northampton	592	95.33%	29	4.67%	621
Onslow	6150	96.03%	254	3.97%	6404
Orange	4429	96.62%	155	3.38%	4584
Pamlico	286	92.56%	23	7.44%	309
Pasquotank	1513	97.49%	39	2.51%	1552
Pender	1740	95.45%	83	4.55%	1823
Perquimans	259	95.22%	13	4.78%	272
Person	1262	97.00%	39	3.00%	1301
Pitt	6307	97.32%	174	2.68%	6481
Polk	465	95.88%	20	4.12%	485
Randolph	4711	96.18%	187	3.82%	4898
Richmond	1408	96.70%	48	3.30%	1456
Robeson	4742	95.82%	207	4.18%	4949
Rockingham	2762	96.24%	108	3.76%	2870
Rowan	5213	97.44%	137	2.56%	5350

Rutherford	1953	95.92%	83	4.08%	2036
Sampson	2108	95.04%	110	4.96%	2218
Scotland	821	97.74%	19	2.26%	840
Stanly	1872	96.69%	64	3.31%	1936
Stokes	1152	94.74%	64	5.26%	1216
Surry	2446	95.92%	104	4.08%	2550
Swain	328	95.07%	17	4.93%	345
Transylvania	853	95.74%	38	4.26%	891
Tyrrell	174	97.21%	5	2.79%	179
Union	6034	97.21%	173	2.79%	6207
Vance	1729	96.54%	62	3.46%	1791
Wake	38090	97.84%	842	2.16%	38932
Warren	437	95.41%	21	4.59%	458
Washington	344	96.09%	14	3.91%	358
Watauga	2167	96.87%	70	3.13%	2237
Wayne	4204	96.93%	133	3.07%	4337
Wilkes	2198	96.45%	81	3.55%	2279
Wilson	3096	96.54%	111	3.46%	3207
Yadkin	1060	96.89%	34	3.11%	1094
Yancy	364	95.79%	16	4.21%	380
STATE TOTAL	360428	97.04%	10986	2.96%	371414

3. YOUNG DRIVERS

Drivers ages 16 – 20 account for 16% of all motor vehicle crashes in North Carolina. Only among the very oldest drivers is it as important to differentiate between single years of age to understand the fundamental issues underlying these crashes. Accordingly analyses presented below show results by single year of age, including 15 year-olds. Although no 15 year-old can legally drive without an adult supervisor in North Carolina some do so, and there are a substantial number who are driving with a supervisor though few of them crash while doing so.

Injury Severity by Year and Driver Age

There was no meaningful change in the severity of young driver injuries from 2001 to 2003. Table 3.2 shows, somewhat surprisingly, that injury severity does not differ for young drivers of varying ages.

Table 3.A: *Number and Percent of Crash-Involved Young Drivers
by Driver Injury Severity and Age*
(Jan 2005 through Dec 2005)

Driver Age	PDO	Minor/ Moderate	Severe/ Fatal	Unknown	Total
15	73.30%	29.21%	1.39%	1.81%	719
16	77.55%	29.81%	0.83%	0.78%	8340
17	77.36%	29.93%	0.74%	1.08%	10818
18	75.04%	32.69%	1.08%	1.00%	13148
19	75.77%	32.29%	0.85%	1.20%	12615
20	75.90%	32.48%	0.89%	1.26%	12284
					57924

Summary Points

- Approximately 76% of young driver crashes involved no injury to the driver.
- Driver injuries were equally (non) severe at each age among young drivers.
- Although the number of young driver crashes increased, this is completely explained by population growth in this age group.

Other Demographic Characteristics of Crash-Involved Young Drivers

As is shown in Table 3.B, among the youngest drivers, males and females are about equally likely to crash. However, among 18 through 20 year-old drivers, females represent only about 43% of crashes. It is not known what accounts for this differential. Research on sex differences in crash rates among the general driving population indicates that much of the difference between the number of males and females in crashes results from the greater amount of driving done by males. That undoubtedly explains some, though perhaps not all, of the sex difference in young driver crashes as well.

Table 3.B *Table of crashes by age and sex*

(Jan 2005 through Dec 2005)

Driver Age	Male	Female	Unknown	Total
15	398	316	5	719
16	4238	4095	7	8340
17	5807	4999	12	10818
18	7510	5625	13	13148
19	7335	5269	11	12615
20	7002	5268	14	12284
Total	32290	25572	62	57924

Table 3.C *Alcohol Involvement in Young Driver Crashes by Age*

(Jan 2005 through Dec 2005)

Driver Age	No Alcohol		Alcohol		Total
	Number	Percentage	Number	Percentage	
15	707	98.33%	12	1.67%	719
16	8287	99.36%	53	0.64%	8340
17	10689	98.81%	129	1.19%	10818
18	12846	97.70%	302	2.30%	13148
19	12223	96.89%	392	3.11%	12615
20	11839	96.38%	445	3.62%	12284
	56591	97.70%	1333	2.30%	57924

Table 3.C shows the average number of yearly crashes by age and the investigating officer's assessment of whether the young driver had been drinking.

Summary Points

- The number of crashes increases as more young drivers are driving without an adult supervisor in the vehicle.
- Among the youngest drivers females have nearly as many crashes as males
- Among drivers 18 through 20, males account for 56% of crashes.

Time of day, week and year of Young Driver Crashes

Young driver crashes exhibit a distinct pattern throughout the day. This clearly reflects the life conditions that determine the driving patterns of young adults. For 16 and 17 year-old drivers there are sharp peaks during the hours immediately before and after school and lows in the late evening and early morning hours. Nineteen and 20 year-old drivers show a very different pattern, with crashes reaching the highest point during the

evening commuting period from 5 to 6 p.m. Eighteen year-old driver crashes represent the fact that this age group is in transition between high school and work worlds, falling between younger and older drivers.

The low percent of 16 & 17 year-old crashes during the day reflect reduced driving during school hours, and this difference would be greater if crashes were looked at only on weekdays during months when school is in session. The lower number of crashes after 9 p.m. clearly reflects the effect of the night driving restriction that applies for 6 months to many 16 and 17 year-old drivers.

Crashes among the youngest drivers (ages 16 & 17) are distributed differently than other driver crashes across months of the year. This is due partly to the effects of the school year, which result in more driving by the youngest drivers. Crashes then decline markedly in June and July, followed by a rise in the fall months.

Despite the influence of school on 16 & 17 year-old driving, the weekday vs. weekend crash distribution for young drivers is essentially the same as for older drivers. Among all drivers 24% of crashes occur on weekends; among 16 & 17 year-olds 23% of crashes occur on weekends and 26% of 18 – 20 year-old driver crashes happen on weekends.

Nature of Driver Errors/Crash Causes Among Young Drivers

Among young driver crashes, the driver did something to contribute to the crash in 68% of all crashes, ranging from 74% for 16 year-olds to 63% for 20 year-old drivers. By comparison, only 48% of drivers ages 25-54 contributed to their crash. A substantial proportion of young driver errors are accounted for by just three actions: Failure to yield, failure to reduce speed appropriately and driving too fast for conditions. With each additional year of age there are fewer cases of each of these driver errors.

Young drivers are much more likely than older drivers to have had a speed-related crash. Whereas 19% of crashes among drivers ages 25 - 54 involved speed, 33% of 15 - 20 year-old drivers were involved in a speed-related crash. Speed involvement in crashes decreases with each year of driver age. It is important to note that in most of these cases, exceeding the speed limit was not considered to be the problem. Rather it was a failure to appropriately manage the vehicle's speed that contributed to the crash. In most cases for young drivers, it was the failure to reduce speed as needed that caused the problem, rather than the driver exceeding the posted speed limit. This is an important point because it indicates that speed-related crashes among young drivers are not so much a matter of violating the speed limit as they are a case of the young driver not doing a good enough job assessing the situation and responding appropriately.

Roadway Characteristics and Location

Especially in view of the lack of experience and different driving tendencies of the youngest drivers we might expect that crashes at certain roadway locations or in conjunction with particular roadway characteristics would be different among young drivers. That is in fact the case, although it appears that most of the difference is merely a result of differential exposure. That is, as drivers get older they tend to do more driving in some situations than others. For example, there is a substantial increase in the proportion of crashes that occur on multi-lane roadways. In general, multilane roads are safer than 2-lane roads. Hence the only apparent reason that ‘older’ young drivers have more crashes on these roads is simply that they do more driving there.

With each additional year of age the proportion of crashes that occur in rural locations decreases. The only explanation we can find for this is that rural roadways are more dangerous and that 16 and 17 year-old drivers are particularly vulnerable to errors in judgments that rural roads require and are lacking in skills necessary to safely maneuver many of these roads.

Between age 16 and 20, the proportion of crashes that occur at an intersection with a traffic light increases from 17% to 22% (a 28% increase). The percent of crashes that occur in this setting continues to climb until age 45 at which point it levels off at 26%. It may be that this reflects an increasing boldness in driving as a result of experience and other changing life conditions that result in a slight increase in risky behaviors at intersections (e.g., running yellow and red lights, right turns on red without stopping, etc.).

Despite the difference in crashes at signalized intersections, there is no overall difference in intersection crashes among younger and older drivers. Among drivers under age 45, about 31% of crashes occur at intersections; young drivers have an essentially identical proportion of crashes at intersections (30%). Moreover there is little variation in the proportion of intersection crashes by age among young drivers, ranging from 32% for 16 year-olds to 30% for 20 year-old drivers.

Alcohol Use by Young Drivers in Crashes

Drinking among young drivers is often misunderstood to be far more common than is actually the case. Among the youngest drivers, alcohol use is quite uncommon, but with each year of age it increases. From this it is clear that drinking among “teen” drivers is not a meaningful notion. The lives of young teens differ dramatically from those of older teens and this is reflected in the dramatically different rates of alcohol-involvement in crashes. Whereas alcohol is very rarely involved in crashes of 16 and 17-year old drivers, involvement by 19 year-old drivers is nearly as common as among drivers ages 30 – 45. In contrast, alcohol involvement in crashes of 16 & 17 year-olds is lower than for any age group – even those older than 85. Because younger drivers have a higher crash risk at comparable blood alcohol concentration levels, these data suggest that the actual amount

of driving after drinking is even lower in comparison to older drivers than the crash data would indicate. This is consistent with national research.

Table 3.D *Table of Drivers Age by Crashes by Severity*

(Jan 2005 through Dec 2005)

Driver Age	PDO	Fatal	Injury	Unk	Totals
15	527	2	177	13	719
16	6468	17	1790	65	8340
17	8369	20	2312	117	10818
18	9866	35	3116	131	13148
19	9558	35	2871	151	12615
20	9324	25	2780	155	12284
Total	44112	134	13046	632	57924

Summary Points

- Alcohol use by crash-involved young drivers, all of whom are under the legal drinking age, is lower than for all age groups up to age 50.
- Alcohol use among underage persons involved in crashes varies dramatically by driver age. From age 16 thorough 20, alcohol involvement in crashes increases in nearly linear fashion.

Young Driver Crashes by County

Crash rates per capita vary widely across North Carolina counties. It is not known why this is the case, however, there are several partial causes. Since crash rates are based on population rather than licensed drivers, it is likely that those counties where the driver education system is able to move young drivers through at earlier ages will have more young drivers and, as a result more crashes. Conversely, counties where the driver education system is backlogged will delay licensure among the youngest drivers and reduce the number of crashes they experience as a result.

Another factor in young driver crash rates is the road system on which they drive. Those counties with more dangerous roads will experience more crashes overall and this will apply to young drivers as well. It is not clear whether a greater proportion of narrow rural, mountainous roads will produce more young driver crashes or whether a preponderance of heavily congested urban roadways will result in more crashes. Certainly the latter will result in fewer serious crashes because crash speeds will be lower.

Finally, those counties that attract young drivers from other areas, including other states, will exhibit higher crash rates because of more travel within their borders by young drivers. This would be the case in border counties as well as resort communities; it may explain the particularly high crash rates in Dare and New Hanover counties.

Table 3.E provides detailed information about young driver crashes by county for the period from January, 2005 through December, 2005. In addition to showing where crash rates are high this table also indicates where the majority of young driver crashes occur.

Not surprisingly, these are concentrated in counties with larger populations. This is important information for deciding where to concentrate efforts to reduce young driver crashes. Those counties where both the number and rate of young driver crashes is high represent promising targets for community programs.

Table 3.E *Table of County by Age*

(Jan 2005 through Dec 2005)

	15 Yrs	16 Yrs	17Yrs	18 Yrs	19 Yrs	20 Yrs	Total
Alamance	17	165	208	242	213	229	1074
Alexander	2	22	42	41	26	31	164
Alleghany	1	7	15	12	9	8	52
Anson	5	26	28	29	23	20	131
Ashe	3	33	38	32	24	29	159
Avery		13	13	18	18	13	75
Beaufort	3	54	50	55	66	38	266
Bertie	1	12	8	24	29	16	90
Bladen	6	34	34	32	22	33	161
Brunswick	2	67	95	128	104	94	490
Buncombe	19	207	282	320	341	282	1451
Burke	10	123	129	152	141	116	671
Cabarrus	18	188	260	295	236	196	1193
Caldwell	8	90	92	111	93	74	468
Camden		11	9	14	5	4	43
Carteret	4	69	78	92	85	72	400
Caswell	1	7	16	15	17	20	76
Catawaba	17	171	288	328	214	270	1288
Chatham	8	72	57	67	58	54	316
Cherokee	3	29	31	27	22	25	137
Chowan		14	6	12	10	14	56

Clay		9	10	14	8	7	48
Cleveland	6	107	120	137	105	97	572
Columbus	6	60	66	75	81	67	355
Craven	5	66	98	96	114	113	492
Cumberland	25	183	350	514	562	567	2201
Currituck		10	28	24	22	16	100
Dare	1	59	68	66	49	52	295
Davidson	16	224	221	248	173	166	1048
Davie		56	56	45	34	41	232
Duplin	3	49	72	67	72	80	343
Durham	11	159	256	361	391	396	1574
Edgecomb	5	33	51	53	56	52	250
Forsyth	36	355	445	504	435	473	2248
Franklin	3	49	39	52	46	55	244
Gaston	25	239	291	329	296	300	1480
Gates	3	8	12	16	11	12	62
Graham		9	10	14	10	8	51
Granville	1	38	37	55	41	31	203
Greene	2	15	12	24	26	18	97
Guilford	25	435	535	685	781	780	3241
Halifax	3	45	55	64	63	51	281
Harnett	11	96	115	128	112	103	565
Haywood	3	43	56	71	44	45	262
Henderson	6	99	110	140	146	107	608
Hertford	3	14	22	30	28	35	132
Hoke	5	19	18	24	27	22	115
Hyde		4	4	4	1	6	19
Iredell	8	170	176	259	282	207	1102
Jackson	5	24	30	59	77	59	254
Johnston	12	155	214	212	206	163	962
Jones	1	5	5	20	16	14	61
Lee	11	69	94	109	101	97	481
Lenoir	7	74	72	76	90	90	409
Lincoln	12	93	110	95	92	99	501
Macon	1	17	32	47	48	23	168
Madison		14	13	17	12	16	72
Martin	3	14	22	31	20	17	107
McDowell	4	37	41	37	41	31	191
Mecklenburg	55	577	931	1305	1271	1223	5362
Mitchell	1	10	22	31	16	13	93
Montgomery	1	22	28	26	25	21	123
Moore	6	87	100	111	104	87	495
Nash	11	102	137	139	124	137	650
New Hanover	15	235	267	369	456	493	1835

Northampton		11	16	10	19	17	73
Onslow	8	106	189	254	362	426	1345
Orange	8	105	117	137	165	178	710
Pamlico		8	18	12	17	10	65
Pasquotank	1	33	57	72	70	46	279
Pender	4	42	65	81	54	65	311
Perquimans		12	12	16	7	5	52
Person	4	44	51	62	36	31	228
Pitt	9	127	175	275	268	326	1180
Polk		12	12	23	14	13	74
Randolph	13	176	188	208	179	166	930
Richmond	2	44	49	61	58	40	254
Robeson	11	88	149	167	187	185	787
Rockingham	3	75	82	102	103	85	450
Rowan	12	135	170	204	177	199	897
Rutherford	1	49	82	95	75	82	384
Sampson	8	68	51	96	74	76	373
Scotland	4	24	28	34	32	28	150
Stanly	6	81	73	93	78	60	391
Stokes	3	45	71	55	52	43	269
Surry	6	91	87	116	91	75	466
Swain		12	17	14	13	11	67
Transylvania	3	31	27	39	41	27	168
Tyrrell	1	6	4	9	5	4	29
Union	18	162	238	241	193	181	1033
Vance	3	34	55	70	57	52	271
Wake	71	720	1026	1211	1190	1188	5406
Warren	1	7	14	14	19	22	77
Washington	2	4	11	4	11	6	38
Watauga	2	49	71	103	125	154	504
Wayne	6	119	164	156	138	131	714
Wilkes	3	80	58	100	86	68	395
Wilson	7	81	85	109	112	109	503
Yadkin	3	36	61	57	31	34	222
Yancy	1	21	18	22	8	14	84
State Total	709	8340	10821	13151	12618	12285	57924

Summary Points

- Three counties (Mecklenburg, Wake, and Guilford) account for more young driver crashes than the 70 counties with the smallest number of crashes.
Mecklenburg alone accounts for more crashes than the 46 bottom-ranked counties

4. MOTORCYCLE SAFETY

Motorcycle Crashes by Injury Severity Level

North Carolina has over 263,000 licensed motorcyclists, which is only a small portion of the total licensed driver population; however, motorcyclist crashes represent a high percentage, (9%) of our overall crashes statewide and (12%) of our fatal crashes. When motorcycle drivers are involved in crashes, the outcome is usually more serious in terms of injury and death, as is demonstrated in Table 4.A for Jan 2005 – Dec 2005.

Table 4.A 2005 Motorcycle Crashes vs All Vehicle Crashes

(Jan 2005 through Dec 2005)

Type Crash	Number of Motorcycle Crashes	Percent of Total M/C Crashes	Number All Vehicle Crashes	Percent of Total Veh Crashes
PDO	471	14.00%	287261	77.34%
Type A Injury	387	11.50%	2601	0.70%
Type B Injury	1,570	46.67%	19,906	5.36%
Type C Injury	794	23.60%	60,628	16.32%
Fatals	124	3.69%	1,018	0.27%
Unknown	18	0.54%	4,533	1.22%
Total	3,364	100.00%	371,414	100.00%

Findings

- Approximately 86% of annual motorcyclist crashes involves death or injury for the driver as compared to only 13% for all other vehicles. This is not surprising as motorcycles offer no protection to the rider and the rider is almost always ejected having to rely solely on personal protective gear.
- The number of motorcycle crashes has been increasing for the last five years along with the North Carolina population and number of registered motorcycles, the crash rate for 2005 suggests a continuation of this trend with expectations of it increasing as the number of miles ridden will most likely increase due to the increasing number of riders and rising fuel costs.
- Fatal/severe injury crashes were higher during 2005 and as expected are nearly 40% ahead of last years year-to-date numbers most likely due to increased rider population and increased fuel pricing causing a much higher numbers of motorcycle miles driven.

Crash-Involved Motorcycle Driver Demographic Characteristics

The motorcycle crashes over the years were analyzed as a function of a number of demographic variables such as sex, age, and ethnicity of the driver. The age distribution

of crash-involved motorcycle drivers over the period Jan 2005 – Dec 2005 is shown in Table 4.B as a function of crash injury severity.

Table 4.B Motorcycle Drivers by Age and Injury

(Jan 2005 through Dec 2005)

Age	Fatal	A Injury	B Injury	C Injury	No Injury	Unknown	Totals	Percent
15 or Less	2	5	13	5	4	0	29	0.9%
16-17	0	3	19	6	4	0	32	1.0%
18-19	6	9	69	35	25	0	144	4.3%
20-24	13	58	281	122	88	8	570	16.9%
25-29	18	52	180	80	58	4	392	11.7%
30-39	28	63	368	197	104	1	761	22.6%
40-49	32	101	338	194	101	2	768	22.8%
50-59	16	65	224	111	66	2	484	14.4%
60 or Above	9	31	78	44	21	1	184	5.5%
Totals	124	387	1,570	794	471	18	3,364	100.0%

Findings

- Motorcycle drivers between the ages of 20 and 29 accounted for 28.6% of all motorcycle crashes and the majority of crashes in each crash severity level.
- There has been a steady shift in the average age of motorcycle drivers, with 40-59 aged motorcyclists becoming an increasingly greater percentage of the riding population.
- Male motorcycle drivers were involved in 94-95% of crashes across the three severity levels. The involvement rates for both sexes remained fairly constant over the 3 years.
- White motorcycle drivers appear to have a higher risk for involvement in fatal/severe injury crashes (17%), whereas Latinos (6%) have lower risk. The crash injury risk was about the same for moderate/minor injury (69-75%) and no injury (11-19%) crashes across the ethnic categories.

Weather, Time, and Light Characteristics of Motorcycle Crashes

The motorcycle crashes were analyzed as a function of month. Table 4.C shows the percentages of crashes occurring each month.

Table 4.C

Month of Crash

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Frequency	85	90	262	344	455	372	435	392	320	281	230	98
Percent	2.53	2.68	7.79	10.23	13.53	11.06	12.93	11.65	9.51	8.35	6.84	2.91

Findings

- About 77% of all motorcycle crashes occur between April and October (7 months).
- Almost 57% of motorcycle crashes occur Friday-Sunday and 65% occur from 12:00 noon to 7:00 p.m. Crashes around 2:00 a.m. are more likely to result in fatal/severe injury, likely because bars close at this hour and alcohol is a major factor in fatal crashes.
- Only 2.5% of motorcycle crashes occur during rainy, snowy, or other adverse weather conditions.
- Across the 3 years, about 23% of motorcycle crashes occurred during the nighttime hours. Level of ambient light was not found to be related to crash injury severity.

Number of Parties Involved in Motorcycle Crashes

Single-vehicle automobile crashes are often considered to be more strongly related to driver inexperience, immaturity, and risk-taking factors, given that the primary cause of these crashes would seemingly be the drivers themselves, rather than the actions of another party. Although this may also be true for single-vehicle motorcycle crashes, a higher percentage of such crashes for motorcyclists are likely causatively related to weather, environment, and road conditions than is the case for automobile crashes.

Findings

- Single vehicle (motorcyclist only) crashes represent about 50% of all motorcycle crashes each year, and over 50% of all moderate/minor and fatal/severe injury crashes. Weather, environment, and road conditions, in addition to the usual inexperience, risk-taking, and immaturity factors may influence these high percentages of single-vehicle fatal/injury motorcycle crashes.
- Motorcycle drivers involved in single-vehicle crashes are more likely to have moderate/minor injuries (74%) and less likely to have no injuries (9%) than are motorcycle drivers involved in multiple vehicle crashes (66% and 19%,

respectively). Drivers involved in single and multiple vehicle crashes were equally as likely to be fatally or severely injured.

Road Size and Locality of Motorcycle Crashes

Number of roadway lanes, road class (e.g., interstate, U.S. route, local street) and locality (i.e., urban vs. rural) were both associated with crash injury severity level. Table 4.D presents the statistics as a function of the class of road on which the crash occurred.

Table 4.D Motorcycle Drivers by Road Class and Injury

(Jan 2005 through Dec 2005)

Road	Fatal	A Injury	B Injury	C Injury	No Injury	Unknown	Total	Percent
Interstate	8	20	44	30	18	1	121	3.6%
US Route	23	69	258	140	81	1	572	17.0%
NC Route	24	62	245	141	79	2	553	16.4%
State Secondary Route	45	155	566	242	123	0	1131	33.6%
Local Route	21	77	434	224	144	14	914	27.2%
Public Vehicular Area	0	2	12	8	4	0	26	0.8%
Other/Unknown	3	2	11	9	22	0	47	1.4%
Total	124	387	1,570	794	471	18	3364	100.0%

Findings

- The majority (67%) of all motorcycle crashes, and 73% of all fatal/severe injury crashes, occurs on two-lane roadways.
- Whereas moderate/minor injury crashes were equally likely to occur on roadways with any number of lanes, fatal/severe injury crashes were less likely to occur on 3-lane (10%) and 5-lane (13%) roadways and more likely to occur on those with 2-lanes (18%).
- About 59% of all crashes and 73% of fatal/severe injury crashes occur on rural roadways.
- Motorcycle drivers involved in urban crashes are more likely to receive moderate or minor injuries (72%) or no injuries (17%), and less likely to receive fatal or severe injuries (11%), than are those involved in rural crashes (67%, 12%, and 20%, respectively).
- About 62% of all crashes occur on state secondary roads (34%) or local streets (29%). In addition, 40% of fatal/injury crashes and 34% of moderate/minor injury

crashes occur on state secondary roads. Crashes occurring on North Carolina local streets (11%) are less likely to result in fatal/severe injuries.

Speed Limits and Travel Speed in Motorcycle Crashes

The motorcycle crashes were analyzed as a function of the roadway speed limit where the crash occurred and the estimated travel speed of the motorcycle prior to impact. Table 4.E presents the percentage of crashes combined as a function of crash injury severity and estimated speed of travel.

Table 4.E
Motorcycle Injury Severity by Estimated Speed
(Jan 2005 through Dec 2005)

	No Injury		Moderate/Minor Injury		Severe/Fatal Injury		Unknown		
Speed	Number	Percent	Number	Percent	Number	Percent	number	Percent	Total
Not Moving	26	36.1%	43	59.7%	2	2.8%	1	0	72
1 to 20	91	23.2%	273	69.5%	26	6.6%	3	0.8%	393
21 to 40	149	14.1%	790	74.8%	110	10.4%	7	0.7%	1056
41 to 60	132	10.1%	937	71.5%	238	18.2%	3	0.2%	1310
61 to 80	18	6.7%	169	63.1%	80	29.9%	1	0.4%	268
Over 80	5	6.5%	41	53.2%	31	40.3%	0	0.0%	77
Unknown	50	26.6%	111	59.0%	24	12.8%	3	1.6%	188
	471	14.0%	2,364	70.3%	511	15.2%	18	0.5%	3364

Findings

- Not surprisingly, the risk of fatal/severe injury increases linearly as a function of increasing speed limit. In fact, 52% of fatal/injury crashes occurred at speeds of 50 MPH or higher. The highest fatal/severe injury risk was 41-60 MPH (47%), and 61+ MPH (16%) on our roadways.
- Moderate/minor injury crashes were the less likely to occur on roadways with 60-65 MPH (56%) and 70+ MPH (50%) roadways, because even more severe injury was likely on these roads.
- Estimated speed of travel was strongly associated with crash injury severity level with higher speeds almost uniformly associated with greater risk of injury.
- Whereas 8% of all motorcyclist crashes occurred at speeds above 60 MPH, 22% of the fatal/severe injury crashes were associated with such speeds.

Roadway Characteristics, Composition, and Condition in Motorcycle Crashes

To determine the effect of road-related factors, motorcycle crashes were analyzed as a function of the type of road surface (i.e., smooth concrete/asphalt vs. more adverse road

surface), condition of road surface (i.e., dry road vs. wet, sandy, icy, etc.), road characteristics (i.e., straight vs. curve or other), and special road features (in particular, work zones, bridges, and railroad crossings).

Findings

- The type of road surface (i.e., smooth concrete/asphalt vs. grooved pavement or other more adverse road surface) was not found to be related to crash severity.
- Adverse roadway surface conditions (e.g., water, gravel, or ice) were found to be associated with higher risk for non-injury crashes (20%) and lower risk for fatal/severe injury crashes (11%) than would be expected if roadway surface condition and crash severity were unrelated. This could be associated with lower travel speeds under these conditions. Risk for other injury was the same as for dry/clean roads (69%).
- About 34% of all motorcycle crashes occur on curved roadway segments, though 46% of fatal/severe injury crashes occur on curved segments. Curved segment crashes are more likely to result in fatal/severe injury (23%) than are crashes on straight segments (14%).
- Intersection was the special roadway feature most often associated with motorcycle crashes of all types (24%), but was not related to crash severity. Although crashes at driveway intersections represented only a small percentage of motorcycle crashes (8%), they were somewhat overrepresented in fatal/severe injury crashes (10%).
- Although railroad crossings and bridges are considered to be more treacherous for motorcycles than for automobiles, only small percentages of crashes (0-1%) were found to coincide with these special road features, and neither was related to crash severity.
- Similarly, road work zones are considered to be more dangerous for motorcyclists because of road debris and changes in the road grade associated with such areas, but only very small percentages of motorcyclist crashes were found to occur in work zones across the 3 years (1-2%), and crashes in work zones were not associated with any higher severity level for the motorcyclist.

Precipitating Events and Driver Actions in Motorcycle Crashes

Among other things, law enforcement officers are asked to code the first harmful precipitating event that lead to the crash on the report form as well as the vehicle

maneuvers just before the crash occurred. Table 4.F shows the percentage of crashes of each severity level combined across all 3 years as a function of the first harmful precipitating event that lead to the crash.

Table 4.F: *Percentage of Motorcycle Crashes by First Harmful Crash Event and Crash Injury Severity Level during a 3-Year Time Period (2000-2003)*

First harmful crash event	Crash injury severity level			Combined total	
	No injury	Moderate/minor	Fatal/severe	N	Col %
	Row %	Row %	Row %		
Ran off road	10.0	71.8	18.2	908	11.9
Hit movable object	16.2	75.1	8.6	394	5.2
Rollover	8.4	75.9	15.7	1477	19.4
Hit fixed object	8.6	66.6	24.8	999	13.1
Rear end	27.4	63.0	9.6	964	12.6
Left/right turn	12.9	65.8	21.3	957	12.5
Head-on	8.7	51.7	39.6	149	2.0
Sideswipe	24.2	60.0	15.7	458	6.0
Angle	14.7	69.7	15.6	726	9.5
Other	14.8	78.2	7.1	595	7.8

Note. First harmful event or crash injury severity level was missing for 47 (0.6%) of the cases.

Findings

- For the majority (80%) of crashes across severity levels and years, the motorcyclist was simply driving straight on a roadway. This was particularly the case for severe/fatal (88%) and moderate/minor injury (81%) crashes than for no injury crashes (64%).
- The most common harmful precipitating events combined across all crashes were rollovers (19%), followed by hitting a fixed object (13%), rear-ending another vehicle (13%), the motorcyclist or another vehicle making a left/right turn (13%), and running off the roadway (12%).
- Fatal/severe injury to the motorcyclist was strongly associated with head-on crashes (40%), hitting a fixed object (25%), left/right turns (21%), and running off roadways (18%).

Alcohol and Drug Use in Motorcycle Crashes

The motorcycle crashes were analyzed as a function of whether alcohol, illegal drugs, or medications were considered to be a factor in the crash by law enforcement. Table 4.G presents the percentage of crash-involved motorcycle drivers as a function of alcohol/drug use.

Table 4.G Motorcycle Drivers by Age/Injury by DRINTOX

(Jan 2005 - Dec 2005)

Age	Fatal	A Injury	B Injury	C Injury	No Injury	Unknown	Alcohol Involved		No Alcohol Involved	
							Totals	Percent	Totals	Percent
>=15	0	0	1		0	0	1	0.5%	28	0.9%
16-17	0	0	0		0	0	0	0.0%	32	1.0%
18-19	0	1	1		0	0	2	1.0%	142	4.5%
20-24	2	4	12	2	2	0	22	10.5%	548	17.4%
25-29	1	5	17	2	1	0	26	12.4%	366	11.6%
30-39	10	12	28	9	4	0	63	30.0%	698	22.1%
40-49	4	12	32	5	8	1	62	29.5%	706	22.4%
50-59	3	4	19	4	1	1	32	15.2%	452	14.3%
<=60	0	0	1	1	0	0	2	1.0%	182	5.8%
Totals	20	38	111	23	16	2	210		3,154	100.0%

Findings

- Alcohol use was reportedly involved in 7% of all motorcycle crashes, but 26.7% of fatal/severe injury crashes.
- Whereas only 16% of crashes not reporting alcohol or illegal drug involvement resulted in fatal/severe injury, 28% of crashes reporting alcohol use resulted in fatal/severe injury.

Safety Equipment Use and Vehicle Defects in Motorcycle Crashes

The motorcycle crashes were analyzed as a function of helmet usage and vehicle defects identified by law enforcement during the crash investigation

Findings

- The percentages of crash-involved motorcyclists wearing helmets was uniformly high (91%) across all years and levels of crash injury severity. However, it is not known to what extent novelty (i.e., unapproved) motorcycle helmets are being worn, or how these are identified and coded by law enforcement officers. It is also not known whether improperly worn helmets (e.g., strap unbuckled) are coded as helmeted or no helmet.
- Probably due to the high helmet usage rate, there was little evidence of a relationship between helmet usage and crash injury severity.

- The most common motorcycle defect associated with the crashes coded by law enforcement officers were tire defects, which were noted for about 2% of the crashes and were somewhat over represented (3.5%) in fatal/severe injury crashes.

Motorcycle Passengers by Crash Injury Severity

Motorcycle drivers are not the only persons at increased risk of injury or death when crashes occur. Passengers on motorcycles are also at higher risk for serious injury

Findings

- About 274 motorcycle passengers are involved in crashes each year, in which 13% receive fatal/severe injuries, 70% receive moderate/minor injuries, and 16% are not injured. These percentages are very similar to those for motorcycle drivers.
- The overwhelming majority of crash-involved passengers (83%) are women, who appear to be somewhat less likely to escape injury in the crash (15%) than are men passengers (23%).

Summary of Motorcycle Crash Findings

- The overwhelming majority of motorcycle crashes involve death or injury for the driver. Most crash-involved motorcycle drivers are men between the ages of 20 and 54.
- The typical motorcycle crash occurs between April and October on a Friday, Saturday, or Sunday between 12:00 noon and 7:00 p.m. during clear weather on a rural two-lane state secondary road with a 55 MPH speed limit.
- Single vehicle (motorcyclist only) crashes represent about half of all motorcycle crashes, and over half of all moderate/minor and fatal/severe injury crashes.
- Both higher speed limits and higher speeds of travel were associated with greater risk of injury in the crash to the driver.
- Curved roadway crashes are overrepresented in motorcycle crashes and are associated with greater risk for fatal/severe injury than straight roadways.
- Although railroad crossings, bridges, and highway work zones are considered to be more treacherous for motorcycles than for automobiles, only small percentages

of crashes (0-2%) were found to coincide with these special road features, and none were related to severity.

- Rollovers, hitting a fixed object, rear-ending another vehicle, the motorcyclist or another vehicle making a left/right turn, and running off the roadway are the most harmful precipitating events of motorcycle crashes.
- Fatal/severe injury to the motorcyclist was strongly associated with head-on crashes, hitting a fixed object, left/right turns, and leaving roadways.
- The percentages of crash-involved motorcyclists wearing helmets were uniformly high across all levels of crash injury severity. This does not identify if helmets worn wore of the type that met DOT standards or were the novelty type.
- About 274 motorcycle passengers are involved in crashes each year, many of which are women who are injured or killed as a result.
- The following 20 counties had both an overrepresentation of crashes and severe injury / fatalities: Buncombe, Burke, Catawba, Cumberland, Durham, Forsyth, Graham, Guilford, Hanover, Iredell, Mecklenburg, Onslow, Pitt, Randolph, Wake, Cabarrus, Davidson, Gaston, Johnston, Robeson, and Union. These counties are in the greatest need of motorcycle crash interventions.

5. PEDESTRIAN SAFETY

More than 2,500 pedestrian-motor vehicle crashes have been reported to the NC Division of Motor Vehicles during the year 2005.

Although crashes involving pedestrians represent only about 1% of the total reported motor vehicle crashes in North Carolina, pedestrians are highly over-represented in fatal and serious injury crashes. Approximately 12% of the fatal crashes and 9% of A-type (disabling injury) crashes in North Carolina involved pedestrians. On average, 170 (over 7% of those struck) pedestrians were killed and an additional 354 were seriously injured each year from 2000 to 2002.

Although the number of pedestrian crashes has increased over the past three years, an apparent declining trend in the proportion of disabling (A-type) injuries reported has continued. These changes, which began with the year 2000, and echo those for all crashes, may result at least in part from new reporting practices (perhaps more stringent definition of A-type injuries) instituted with the new crash report form and instruction manual in use beginning with the year 2000. The proportion of reported A-type injuries has dropped from 15% in 2000 to 10% in 2002. The proportions of B type, C type, and no injury crashes have increased proportionally.

Pedestrians should be expected to walk anywhere they are not strictly prohibited and reasonable accommodation for their safety and access should be provided on all roadways. Even on interstates, motorists may have to walk from disabled vehicles, or pedestrians may try to cross busy interstates that pass through urban areas. The tables, figures, and text that follow are intended to illuminate the characteristics of pedestrian crashes and highlight some of the pedestrian safety issues across North Carolina. Some discussion of potential countermeasures is included. Nevertheless, more in depth analyses of particular locations and conditions are required in most cases, before definite countermeasures can be implemented.

Temporal factors

There are slight year to year fluctuations, but pedestrian crashes in North Carolina are fairly evenly distributed throughout the year each year. The highest proportions occurred during the months of October (10.1% of the total) followed by September (9.5%) and May (9.1%) for the years 2000 – 2002. The lowest total occurred in February (6.9%), followed by July (7.2%) for the three years. Other months account for about 8 to 9%.

Pedestrian crashes peak on Friday (17.9%) and Saturday (16.5%), with the lowest proportion occurring on Sunday (10.1%) for the three-year. Thursday also accounts for a slightly higher proportion than other weekdays at 14.7%.

Pedestrian crashes are most likely to occur in the afternoon and early evening between the hours of 2 pm to 6 pm and 6 pm to 10 p.m., with over half of pedestrian crashes occurring during these eight hours. The mid-day period of 10 am to 2 pm accounts for the third highest proportion of crashes. There is no significant year to year variability in these trends.

Temporal factors are doubtlessly related to exposure. For greatest effect, enforcement or other safety measures would be targeted toward afternoon to evening hours, with an emphasis on Fridays and Saturdays (evenings), and, with particular emphasis during the months of September – October, and May. The fall peaks in pedestrian crashes are likely related to back-to-school periods, so special emphasis on enforcement around schools during these time periods could pay off.

Environmental factors

About 40% of pedestrian crashes over the three years have occurred during non-daylight conditions, including dusk and dawn. Most non-daylight crashes occurred under conditions of darkness. Over half of night-time crashes occurred on lighted roadway segments, although almost as many occurred in unlighted areas. The remaining 58% of pedestrian crashes occurred during daylight hours. Trends are fairly consistent across years, but there are slight year-to-year fluctuations.

The vast majority (above 93%) of pedestrian crashes occur under clear or cloudy weather conditions on average no doubt reflecting exposure (fig. 5.4). Year to year variation in the number of crashes occurring under rainy, or other conditions (frozen precipitation, or foggy/smoky, etc.) conditions, is also likely a reflection of exposure to these conditions (e.g., more pedestrian crashes under snowy conditions in years when the state received more snowfall).

While most crashes (55%) occurred during clear or cloudy weather *and* under daylight conditions, 18% occurred during night-time on lighted roadways (clear or cloudy) and another 15% occurred during night-time on unlighted roadways (clear or cloudy conditions). Countermeasures include adding lights to non-lighted areas where pedestrians may be expected, as well as education about pedestrian conspicuity: wear bright clothing, carry lights at night, walk facing traffic.

Pedestrian characteristics

It is difficult to draw any conclusions about the year-to-year fluctuations in crash proportions by age group. The 51 to 60 year group has, however, shown numerical and proportional increases each of the three years while the 26 to 30 year group has shown a decline. These changes may reflect increases in the proportion of the population in this age group, as well as possible changes in exposure (more walking) and/or simply random variation. On average, older teens (16 to 20) and young adults (21 to 25), accounted, however, for greater numbers and proportions of pedestrian crashes than other groups, probably reflecting greater pedestrian mobility among these ages. Beginning with the 41 to 50 year group, the proportion of crash involvement starts declining as age increases.

The proportions of those killed and seriously injured (disabling type injuries) is, however, higher than the overall crash involvement for age groups beginning with the 31 to 40 age group and above. These results probably ensue for the most part, from differences in crash location and types of crashes that different age groups tend to be involved in, and thus discussion of countermeasures will be included in the section on crash type involvement. The results of increasing crash seriousness with increasing age also likely reflect to some extent increasing vulnerability, particularly of the oldest age group.

Males consistently accounted for nearly 2/3 (63%) of the pedestrians reported involved in crashes in each of the 3 years while females were involved in a little over 1/3 or 37% of pedestrian crashes.

Although pedestrian crashes in North Carolina are most likely to involve pedestrians of White racial background (approximately 47%), Blacks are almost as likely to be victims (approximately 40% - Table 5.A). Considering they comprise about 22% of persons living in the State (2000 census data), Blacks are clearly over-represented in pedestrian crashes, and Whites are under-represented based on the population (about 72%). There appears, however, to be a decreasing trend in the proportion of crashes involving black pedestrians, from around 45% in 1998 to about 40% in 2005, while involvement by other groups has increased slightly. Whether these trends reflect changes in exposure (the amount or conditions of walking) or other factors is unknown. Asians and Native Americans each account for less than 1% of the total pedestrian crashes. Since the year 2000, when the state began identifying Hispanics and persons of Asian descent on crash report forms, Hispanics have accounted for about 5 – 7% of the pedestrian crashes each year, and a comparable proportion of the population, 4.7% in 2000.

Table 5.A

Table of Pedestrian Age by Race
(Jan 2005 through Dec 2005)

Age	White	Black	Hispanic	Native American	Asian	Other	Unknown	Total
6 and Under	43	77	27		1	1	5	154
7 to 10	31	44	11		1	1	3	91
11 to 14	44	65	9	1	1		4	124
15 to 20	138	131	18	4	2		15	308
21 to 30	205	196	60	6	8	4	10	489
31 to 40	218	164	32	3	5	3	13	438
51 to 60	198	154	12	5		1	9	379
51 to 60	142	94	11	3	1	3	8	262
Over 60	162	69	11	6	5	2	15	270
Total	1181	994	191	28	24	15	82	2515

The investigating officer indicated alcohol use by about 7% of the pedestrians struck by motor vehicles over this period with the proportion apparently declining from around 13% in 2000 to 7% in 2005 (Table 5.B). Indicated use does not necessarily imply that the pedestrian was intoxicated at the time of the crash, only that alcohol use was detected.

Table 5.B

Pedestrian by Age by DRINTOX
(Jan 2005 through Dec 2005)

Age	Alcohol Involved		No Alcohol		Unknown		Total
	Number	Percent	Number	Percent	Number	Percent	
6 and Under	2	1.20%	162	97.01%	3	1.80%	167
7 to 10			113	96.58%	4	3.42%	117
11 to 14	1	0.60%	165	98.21%	2	1.19%	168
15 to 20	19	2.80%	636	93.81%	23	3.39%	678
21 to 30	121	10.47%	981	84.86%	54	4.67%	1156
31 to 40	100	10.47%	806	84.40%	49	5.13%	955
41 to 50	100	11.64%	726	84.52%	33	3.84%	859
51 to 60	49	8.52%	506	88.00%	20	3.48%	575
60+ or Unk	16	1.14%	624	44.51%	762	54.35%	1402
Total	408	6.71%	4719	77.65%	950	15.63%	6077

Driver use of alcohol was detected in an average of 4% of the drivers involved in collisions with pedestrians over the period. This rate is slightly lower than alcohol detection reported for crashes overall over the same period (5.7%).

Roadway and location characteristics of pedestrian crashes

Although rural crashes accounted for about 33% of crashes each year (and 34% of all injuries), they tend to be more serious, comprising 44% of the A type (disabling) injuries and 56% of those killed in pedestrian crashes.

Additionally, fatal and serious injuries are highly over-represented in crashes on roadways with speed limits of 50 mph and above. Above 21% of crashes on these roadways resulting in fatal injuries compared with 7.5% for all speed limits, and 18% resulting in A-type injuries compared with 9.6% over all.

Crash severity also tends to vary by roadway classification, as might be expected (Table 5.C).

Table 5.C Pedestrian Injury by Roadclass
(Jan 2005 through Dec 2005)

Roadclass	Fatal	Injury	PDO	Total
Interstate	19	32	4	55
US	40	137	13	190
NC	22	118	5	145
SSR	38	276	19	333
Local Street	52	1125	190	1367
Private road/drive	4	62	6	72
PVA	4	568	82	654
Total	179	2318	319	2816

The majority of reported pedestrian roadway crashes occurred on two-lane roads (62% on average), while approximately 28% occurred on roadways with four or more through travel lanes. There are year-to-year fluctuations in most categories, but an apparent increasing trend in the number of pedestrian crashes on single-lane roads (avg. of 5%), and a slight downward trend in the proportion occurring on three-lane roadways (data not shown). These changes may reflect changes in the extent of roadways in operation with these numbers of lanes, extent of walking on such roadways, or other factors.

When typing crashes, reviewers coded on average, approximately one-fourth of pedestrian crashes for the three years as having occurred at intersections, slightly less than ½ occurred at non-intersection roadway locations, with the remainder (29%) occurring at non-roadway locations. These proportions vary considerably by rural and urban location, with 64% of rural crashes occurring at non-intersection locations

compared to 38% of urban crashes. Only 11% of rural crashes occurred at intersections, while 31% of urban crashes took place at intersections.

Understanding the location characteristics of crashes (both numbers and severity) can help in determining where to direct resources and countermeasures. Additional information by county will also be provided below. The types of countermeasures that may be implemented depend, however, on the types of crashes occurring at urban / rural locations, by roadway type, intersection versus non-intersection, as well as other location variables. These characteristics are discussed below.

Counties

Obviously, the more urbanized areas tend to account for the highest numbers and percentages of crashes in the state. The ten counties that account for the highest percentages of pedestrian-motor vehicle crashes for the years 2003 – 2004 were:

Pedestrian Top Ten Counties

MECKLENBURG	385	15.31%
WAKE	236	9.38%
GUILFORD	125	4.97%
CUMBERLAND	115	4.57%
DURHAM	112	4.45%
BUNCOMBE	90	3.58%
NEW HANOVER	79	3.14%
GASTON	75	2.98%
FORSYTH	71	2.82%
ROBESON	66	2.62%
		53.84%

The ten highest crash counties accounted for 53.84% of NC's reported pedestrian / motor-vehicle crashes.

Summary of findings

While pedestrian crash rates may seem low compared with overall crash rates, the high proportions of fatalities and serious injuries and the need to provide a safe and encouraging environment for pedestrians on the roadways warrants a serious effort to address pedestrian safety on the state's roadways. While more crashes occurred in urbanized areas, rural crashes tend to be particularly serious, with nearly 28% of those hit in rural areas killed or seriously injured.

Crashes typically occur during daylight hours (58%) but nighttime crashes are probably over-represented. We have, however, no exposure data to test this hypothesis. Crashes also occurred the majority of the time during clear or cloudy weather, also no doubt reflecting the greater amounts of walking / exposure that occur under these conditions.

The most frequent crash type involves Pedestrian failure to yield. It should be pointed out, however, that this crash type does not necessarily imply fault. For example, a pedestrian may detect a gap at a mid-block area and begin crossing, but a speeding motorist closes the gap sooner than expected and strikes the pedestrian. While the pedestrian may not have been visible, and strictly speaking, may not have had the right-of-way, the motorist was clearly at fault under these circumstances by speeding, and failing to slow and avoid the crash.

Actual speed has not been directly addressed to this point, due to the difficulty in obtaining meaningful speed data from the limited number of pedestrian crash reports. The evidence, based on national data suggests that speeding is a contributing factor in 31% of crashes of all types, nationally, and in 38% in NC. Lowering travel speeds may therefore help prevent crashes and reduce the occurrence of pedestrians being struck. Additionally, a widely cited study found that when a crash does occur, the chance of death increases dramatically as speed of the vehicle involved increases. The chance of death is 5% at 20 mph, increasing to a 45% chance at 30 mph, and an 85% chance of death, if the vehicle is traveling at 40 mph. The NC data included in this report, including the greater seriousness of crashes in rural areas, the higher proportions killed and seriously injured on 50 mph and above roadways, and on interstate, NC, and US highways, where speeds are significantly higher than in urban areas and on local streets, also suggest that speed has a serious effect on pedestrian crash outcomes, given that a crash occurs. Thus, addressing the problem of speeding statewide is a key to improving pedestrian safety as well as the safety of all road users.

Pedestrian Dart / dash crashes which typically (but not always) involve children, and occur mid-block on local streets is another crash type that warrants attention through calming these streets. Walking along roadway crashes occur most often at night on unlit roadways where sidewalks are lacking and occur in greater proportion and number in rural areas than urban. Other high frequency crash types include Unusual circumstance, unusual pedestrian, and unusual vehicle type crashes. While these may not seem to lend themselves to intervention, they illustrate that pedestrians are likely to be found in a variety of places and circumstances doing a variety of things. Virtually everyone becomes a pedestrian at some time and under some circumstances. Therefore, pedestrian safety improvements to the states roadways are warranted to protect all users, many of whom may not be readily apparent as pedestrians.

Providing space for pedestrians, facilities to assist safe crossing of busy roadways, calming neighborhood streets, and instituting appropriate speed limits and ensuring that motorists comply with them either through enforcement or engineering countermeasures, will help provide protection for pedestrians and enhance the quality of life throughout the

state. Pedestrians should not feel unable to move about due to barriers of high-speed, and increasingly high-volume roadways with no place to safely walk.

6. BICYCLIST SAFETY

More than 700 bicyclist-motor vehicle crashes have been reported to the NC Division of Motor Vehicles during each of the years 2003 and 2004 (753 and 788 crashes, respectively). This number increased to 1174 crashes in 2005.

Although crashes involving bicyclists represent less than ½% of the total reported motor vehicle crashes in North Carolina, bicyclists are over-represented in fatal and serious injury crashes. Approximately 1½ % of the fatal crashes and 2% of A-type (disabling injury) crashes in North Carolina involved bicyclists. The reported bicyclist injuries resulting from crashes with motor vehicles each year are as shown in Table 6.A.

Table 6.A Report by Crash Year by Severity

Year	2003	2004	2005
PDO	12	18	133
% of Year Total	1.59%	2.28%	11.33%
Fatal	19	27	47
% of Year Total	2.52%	3.43%	4.00%
Injury	722	743	994
% of Year Total	95.88%	94.29%	84.67%
Total	753	788	1174
% of Year Total	100.0%	100.0%	100.0%

On average, 33 bicyclists were killed and an additional 67 were seriously injured each year. Fortunately most bicyclist crashes do not result in serious or fatal injuries, with about 90% resulting in B-type or lesser injuries, and about 10% resulting in fatal or serious injuries.

The number of bicyclist crashes has fluctuated over the past three years, but no obvious trend is apparent over this time period. Over a longer period, crashes appeared to be declining in North Carolina until 2005. This trend may be a result of decreasing exposure, particularly among children. The proportion of disabling (A-type) injuries has

not declined as consistently as A-type injuries in other categories. This general downward trend in A-type injuries, which began with a significant decrease from 1999 to 2000, and echo those for all crashes, may result at least in part from new reporting practices (perhaps more stringent definition of A-type injuries) instituted with the new crash report form and instruction manual in use beginning with the year 2000. The proportions of B type (evident) and C type (possible) injuries have remained relatively constant. The proportion of no injury crashes have increased from 5.3 to 11.3% over this time period.

Bicyclists should be expected to ride anywhere they are not strictly prohibited and reasonable accommodation for their safety and access should be provided on all roadways. An increasing emphasis on health and physical activity and improving multi-modal access to roadways warrants consideration of bicyclists whenever new roadways are developed or old ones improved. The tables, figures, and text that follow are intended to illuminate the characteristics of bicyclist crashes and highlight some of the bicycle safety issues across North Carolina.

Temporal factors

Crashes involving bicyclists vary seasonally with the highest levels during the spring and summer months, and the lowest percentages during late fall and winter months. These trends no doubt reflect seasonal riding trends. The peak months are July and August at approximately 12%, followed closely by May, June and September. December and January are the lowest crash months.

Bicyclist crashes peak on Friday (16.3%) and Saturday (15.2%), with the lowest proportion occurring on Sunday (11.3%). Other weekdays account for about 14 to 15% of crashes, with Monday being slightly lower (13.9%).

Forty percent of bicycle – motor vehicle crashes occurred in the afternoon hours of 2 pm to 6 pm over this two year period. Twenty-six percent of crashes occurred during early evening between 6 pm to 10 pm, followed by 20% around midday. Slight year to year fluctuations in these proportions may reflect differences in exposure due to weather and other factors.

Temporal factors are doubtlessly related to exposure or when bicyclists ride most.

Environmental factors

The vast majority of crashes occur under daylight conditions. Three-fourths of bicycle crashes with motor vehicles occurred under daylight conditions. Eighteen percent occurred at night, with 10% on lighted roadway segments and 8% on unlighted. There was a drop from 15 crashes (about 2%) to 2 crashes (0.2%) that occurred during early morning (dawn) hours from 2000 to 2002 and slight year-to-year increases in crashes at nighttime (on both lighted and unlighted roadways). These results may be due to random

variation or may reflect exposure differences – more or less riding under those conditions.

The vast majority of bicyclist crashes occurred under dry weather conditions (clear or cloudy) on average no doubt reflecting exposure. Only 3% occurred during rain and less than 1% occurred under all other conditions (freezing precipitation, fog/smog/smoke, and other). Slight year to year fluctuations in the number of crashes occurring under rainy and other conditions, is also likely a reflection of exposure to these conditions (e.g., more bicyclist crashes under rainy conditions in years when the state received more rainfall).

While most crashes occurred during clear or cloudy weather and under daylight conditions, 17% occurred during night-time on lighted or unlighted roadways (clear or cloudy conditions). Most bicyclists apparently try to avoid riding during rain or other precipitation with only about 1 ½ % of crashes occurring during rain in daylight hours and slight more than 1% occurring during rain at night, dusk or dawn. The highest proportions of night-time crashes occur during the fall months of September to November, with the lowest proportion occurring during winter months. Countermeasures for night-time crashes include adding lights to non-lighted areas where bicyclists may be expected, as well as education about bicyclist conspicuity: wear bright clothing, and use lights at night, and perhaps including reminders of decreasing day length as fall approaches in safety publications.

Bicyclist characteristics

It is difficult to draw firm conclusions about the year-to-year fluctuations in crash proportions by age group (Table 6.B). There seems, however, to be an increasing trend across the board within all age groups. Whether these trends will be sustained or are due to more than random variation is unknown; we do not have information about the amount of riding or exposure that goes on in the state or among different age groups. There are, however, some suggestions that child bicycling may be decreasing while that among adults may be increasing. As with pedestrian crashes, the somewhat dramatic increase in crashes among the 41 to 59 year group from 2004 to 2005 may reflect increases in the proportion of the population in this age group, as well as possible changes in the amount of riding.

Table 6.B Pedalcyclists Age by Crash Year

Age Group	2003	2004	2005	Total
6 and under	9	24	36	69
Age 7-10	81	98	90	269
Age 11-14	160	145	163	468
Age 15-20	105	102	291	498
Age 21-30	111	111	417	639
Age 31-40	109	116	379	604
Age 41-50	119	130	391	604
Age 51-59	44	412 50	231	325
60+ or unknown	35	42	387	464
Total	773	818	2385	3940

It is also difficult to draw firm conclusions about relationship of seriousness of bicyclist injuries to age. There is, however, apparently over-involvement of children 6 to 10 and young teens 11 to 15 in serious (type A) injury crashes, although not in fatal crashes. Adults twenty-five and up seem, however to be over-involved in crashes resulting in fatal injuries, particularly the 50 to 59 year group. These results may result primarily from differences in crash location and types of crashes that different age groups tend to be involved in (see below), rates of helmet wearing by different age groups, and other factors, and thus discussion of countermeasures will be delayed until those factors are discussed. The apparent results of increasing crash seriousness with increasing age may also likely reflect to some extent, increasing vulnerability with age, particularly of the oldest age group.

Males consistently accounted for the vast majority (85%) of bicyclists involved in crashes with motor vehicles. These results are consistent with national data.

Although bicycle crashes in North Carolina are most likely to involve bicyclists of White racial background (47% on average), Blacks are involved in almost as many crashes (approximately 43% - Table 6.C). Considering they comprise about 22% of persons living in the State (2000 census data), Blacks are clearly over-represented in bicycle crashes, and Whites are under-represented based on the population (about 72%). There has been a slight decrease in the proportion of crashes involving black bicyclists, from around 46% in 2000 to about 44% in 2002. Asians and Native Americans account for less than ½ % and about 1 ½%, respectively of the total bicyclist crashes. Since the year 2000, when the state began identifying Hispanics and persons of Asian descent on crash report forms, Hispanics have accounted for about 5 – 6% of the bicyclist crashes each year, and a comparable proportion of the population, 4.7% (in 2000).

Table 6.C Pedacyclists by Race by Tear

Race	2003	2004	2005
White	364	400	371
Black	345	364	337
Hispanic	11	17	45
Native	31	28	13
Asian	9	1	5
Other	7	1	3
Unknown	9	7	14
Total	776	818	788

Reported helmet use for bicyclists involved in crashes is extremely low, <2% on average. These data are not, however, considered to be extremely reliable since often an injured bicyclist is transported from the crash scene prior to the reporting officer's arrival. Nevertheless we know from a 2002 statewide observational helmet use survey that bicycle helmet use is unacceptably low. Over all ages, helmet use was estimated to be 24% among those riding on streets. Observed use for those 15 and under was, however, only 16%. Use was lowest in the coastal plain region, followed by the Piedmont region, and highest in the mountain region. It is possible that those involved in crashes use helmets at a lower rate than overall.

The investigating officer indicated alcohol use by only about 1% of the bicyclists involved in collisions with motor vehicles over a 5 year period. Indicated use does not necessarily imply that the bicyclist was intoxicated at the time of the crash, only that alcohol use was detected.

Driver use of alcohol was detected for an average of 2% of the drivers involved in collisions with bicyclists over the three year period. This rate is lower than alcohol detection reported for crashes overall over the same period (5.7%).

Roadway and location characteristics of bicyclist crashes

Although approximately 34% of bicyclist crashes occurred at rural locations each year (and 34% of all injuries), they are more serious, more often than urban crashes, comprising 57% of the A type (disabling) injuries and 53% of those killed in crashes (Table 6.5).

In 2003 and 2004, above 55%, on average, of bicycle – motor vehicle crashes occurred on local streets, likely reflecting more riding in urbanized areas and in neighborhoods (Table 6.5). There were year-to-year fluctuations, but no obvious trends over time. Nearly 20% of bicycle crashes occurred along state secondary routes (which includes the former categories Rural Paved and Rural Unpaved). Around 6 - 7% occurred on US Routes and NC Routes. Nearly 7% of reported bicyclist crashes in this three year period occurred in parking lots, public driveways, or other public vehicular areas, with an additional 3% indicated to be on private property.

Crash severity also tends to vary by roadway classification, as might be expected, with higher proportions of struck bicyclists being killed and seriously injured on interstate routes (2 struck), U.S., NC, and state secondary routes than on local streets or PVA's (public vehicular areas) (fig. 6.5).

The majority of reported bicyclist roadway crashes occurred on two-lane roads (65% on average), while approximately 29% occurred on roadways with four or more through travel lanes (fig. 6.D). These trends were largely consistent from year-to-year

Understanding the location characteristics of crashes (both numbers and severity) can help in determining where to direct resources and countermeasures. Additional information by county will also be provided below

Table 6.D Pedalcyclist by Roadclass by Injury Level
(jan 2005 Through Dec 2005)

ROAD CLASS	FATAL	INJURY	PDO	Total
Interstate	3	4	1	8
US	9	67	6	82
NC	6	62	4	72
SSR	11	153	10	174
LCL	17	614	94	725
PP		2	1	3
PVA	1	92	17	110
Grand Total	47	994	133	1174

Crash types

As with pedestrian crashes, the development of effective countermeasures to help prevent bicyclist crashes is aided by an understanding of events leading up to a crash and contributing factors. Analysis of the data from state crash report forms that are stored in electronic databases can provide information on *where* bicyclist-motor vehicle crashes occur (city street, two-lane roadway, intersection location, etc.), *when* they occur (time of day, day of week, etc.), and *to whom* they occur (age of victim, gender, level of impairment, etc.), but can provide very little information about the actual sequence of events leading to the crash.

Each identified crash type is defined by a specific sequence of events, and each has precipitating actions, predisposing factors, characteristic locations, and sometimes characteristic populations, that can be targeted for interventions

Factors that may contribute to bicycle crashes with motor vehicles include the position and direction the bicyclist is riding. As vehicles, bicyclists should travel in the direction of other vehicular traffic. Motorists do not expect bicyclists to be approaching from the right, nor do they expect them on the sidewalk.

Thirty-three percent of those involved in crashes with motor vehicles, and for whom this information was relevant (i.e., they were not on PVAs, driveways, trails, or other off-road areas) were riding facing traffic.

8% were riding on the sidewalk.

And when bicyclists involved in crashes were reported to be riding on the sidewalk, in more than $\frac{3}{4}$ of the occasions they were also riding against the direction of traffic (fig. 6.10).

When riding on the street in either a shared lane or bike lane or shoulder, bicyclists involved in crashes with motor vehicles were riding against traffic 24% and 31% of the time, respectively.

Adults were about equally as likely as children to be riding facing traffic.

Over the most recent three years of data, the five crash groups responsible for the highest proportions of crashes in NC (not including “Other” which includes a variety of crash types) were the following types:

Sign-controlled intersection - 19.8%

Bicyclist turn / merge - 13.5%

Bicyclist ride-out - mid-block - 11.8%

Motorist overtaking - 11.7%

Motorist turn / merge - 9.8%

- The above five groups accounted for two-thirds of the bicycle – motor-vehicle crashes in NC.

Counties

The ten highest crash rate counties account for only 19% of the states bicycle crashes. Thus, the more urbanized counties do not necessarily have the highest bicycle crash rates, as was more or less the case with pedestrian crashes. Many of the high bicycle crash rate counties have low populations compared to the more urban counties. Twenty-two of the top 25 counties are also in the eastern part of the state. It is likely that there is more bicycle riding per population, and hence a higher crash rate, in these counties for reasons other than population – as examples, a large university student population in Orange County, an aesthetically-pleasing rural riding environment, or the flat topography in the coastal plain which may encourage riding by a larger proportion of the population in eastern counties. There is also likely to be more recreational riding by people from other locations in some of the coastal counties. We cannot, however, say with any certainty that there is greater riding per capita in the eastern part of the state or in the higher crash rate counties, as we do not have exposure data. Therefore, it is also possible, that there are more crashes for other reasons.

Table 6.F Pedacylist by County by Year

County	2003	2004	2005
Alamance	5	14	9
Alexander	0	2	0
Alleghany	0	0	0
Anson	4	1	2
Ashe	0	0	0
Avery	0	0	0
Beaufort	6	12	14
Bertie	0	2	1
Bladen	2	3	4
Brunswick	6	8	7
Buncombe	22	14	30
Burke	4	0	5
Cabarrus	12	2	18
Caldwell	2	5	2
Camden	1	0	2
Carteret	5	8	11
Caswell	0	2	3
Catawaba	10	8	20
Chatham	5	3	2
Cherokee	0	1	0
Chowan	0	1	3
Clay	0	0	0
Cleveland	4	4	10
Columbus	8	3	7
Craven	6	15	15
Cumberland	38	35	41
Currituck	0	5	4
Dare	19	9	19
Davidson	8	7	14
Davie	0	1	2
Duplin	3	5	2
Durham	21	20	42
Edgecombe	14	9	16
Forsyth	20	34	34
Franklin	4	3	2
Gaston	14	29	25
Gates	2	1	0
Graham	0	1	1
Granville	3	4	3

Greene	1	1	0
Guilford	51	63	105
Halifax	7	9	4
Harnett	8	9	9
Haywood	4	0	3
Henderson	5	8	5
Hertford	3	4	1
Hoke	0	4	4
Hyde	1	1	1
Iredell	14	12	19
Jackson	0	0	0
Johnston	9	9	18
Jones	0	1	1
Lee	4	6	7
Lenoir	12	9	14
Lincoln	1	1	1
Macon	0	0	0
Madison	2	0	0
Martin	3	2	6
McDowell	2	0	1
Mecklenburg	66	91	123
Mitchell	0	0	1
Montgomery	0	3	1
Moore	0	1	9
Nash	11	6	23
New Hanover	50	37	70
Northampton	1	2	0
Onslow	16	23	24
Orange	16	15	45
Pamlico	0	1	0
Pasquotank	8	4	5
Pender	1	2	5
Perquimans	2	0	0
Person	0	1	2
Pitt	24	25	8
Polk	0	0	0
Randolph	13	6	4
Richmond	6	7	5
Robeson	20	21	40
Rockingham	8	5	9
Rowan	14	7	10
Rutherford	2	2	5
Sampson	4	5	5
Scotland	9	11	13

Stanly	6	4	5
Stokes	2	0	2
Surry	1	4	6
Swain	0	0	3
Transylvania	0	2	1
Tyrrell	0	0	0
Union	13	6	15
Vance	0	1	3
Wake	69	77	113
Warren	0	0	2
Washington	1	3	4
Watauga	6	3	4
Wayne	15	11	18
Wilkes	2	3	2
Wilson	13	19	20
Yadkin	2	0	0
Yancy	0	0	0
State Total	776	818	1174

Summary of findings

As with pedestrian crashes, bicycle – motor vehicle crashes are a low percentage of overall crashes. But when collisions between bikes and motor vehicles occur, they are often serious with 2.2% of those struck being killed and another 7.5 % being seriously injured. More crashes occur in urbanized areas and on local streets, but rural crashes tend to be more serious, likely because more occur on higher speed roadways, predominantly state secondary roads.

When motorists drove out into the path of a bicyclist, the cyclist was most often traveling against the direction of traffic. Wrong-way riding was also implicated in Signal-controlled intersection crashes as well as Motorist drive-out – mid-block crashes. All of these crash types occur most often in urban areas. Sidewalk riding is particularly over-represented in Signal-controlled intersection crashes as well as Motorist turn / merge crashes.

Reducing crashes involving crossing paths and turning vehicles is a challenge. Obviously, reducing sidewalk riding and wrong-way riding should help to reduce certain crash types, particularly those involving motorists pulling out to turn right at intersections or mid-block locations. Calming intersections by tightening turn radii, enhancing intersection markings, and other measures may help to reduce turning vehicle crashes. Replacing traditional intersections with low-speed roundabouts or mini-traffic circles could help to reduce the frequency and severity of intersection crashes with bicycles by forcing slow speeds through intersections and reducing the overall number of conflict

points. Consideration must be given, however, to the best way to accommodate bicycles through a traffic circle – particularly if multiple lanes are involved.

Children were most often involved in mid-block ride out crashes, also more typically occurring in urban areas, but proportional to the overall urban crash rate. Calming speeds on local streets is one recommended countermeasure for this crash problem.

Crashes that occurred in a greater proportion in rural areas than urban, include Motorist overtaking crashes, and Bicyclist turn / merge crashes (about 61% each). Adults were over-represented in the former and youth, 11 – 15 were over-represented in the latter. Many of the bicyclist turn / merge crashes involving young riders crashes seem to involve the bicyclist changing lanes to avoid an overtaking vehicle. In particular, narrow, high speed roadways in rural areas need improvements to help bicyclists. Providing space on the roadway for bicyclists through adding paved shoulders, and in urban areas, through bike lanes or wide outside lanes, and educating motorists and bicyclists about traffic rules, proper passing, and sharing the road are countermeasures for these two problems. Lower speeds would also help, since rapidly overtaking motor vehicles may have insufficient time to slow to wait for an appropriate gap to pass. Lower speeds also would assist bicyclists that have legitimate need to change lanes or turn, to merge with traffic.

Reducing speeds would help all crash types, since lower speeds help motorists to avoid crashes and also reduces the seriousness if a crash does occur. Lower speeds would help to create, not only a safer bicycling environment, but a more welcoming one.

Although ideally, most bicycle crashes would be prevented through implementation of appropriate countermeasures, when a crash does occur, a properly used safety helmet provides the best protection from serious and fatal injuries. Helmet use is very low in NC, only 24% over all, and even lower among children and the 11 to 15 year group most involved in crashes. Efforts to strengthen support of the statewide helmet law, and promote greater helmet use are therefore strongly recommended.

As public health agencies are increasingly advocating for more active forms of transportation, i.e. bicycling and walking, demand for safe multi-modal roadways will increase over the coming years. Adult bicycling already seems to be on the rise. Providing for the needs of bicyclists and pedestrians on the states roadways should be a key priority over the next period of road-building and improvements.

7. OLDER DRIVER SAFETY

Introduction

An average of nearly 28,000 drivers age 60 or older have been involved in reported crashes in North Carolina over each of the past three years. This number includes nearly 11,000 drivers age 75 or older. Older adults are of particular interest because:

- 1) Their numbers are increasing, and can be expected to continue to increase over the next 30+ years. Whereas the overall North Carolina population is projected to increase 46% by 2030, the age 65+ population will more than double, from just over 1 million to 2.2 million persons age 65+.
- 2) Declining functional abilities and health in older adults contribute to increased crash rates per mile driven. Only 16-19-year-old drivers have higher overall crash rates than do drivers age 80+.
- 3) Once in a crash, older adults are much more vulnerable to injury. Despite their generally lower speeds and less severe crashes, older adults are 4 to 6 times more likely to die as a result of their crash.

This section highlights characteristics of older driver crashes in North Carolina and identifies potential approaches for improving the safety of this vulnerable population.

Older Drivers Involved in Crashes

On average over the past year, 20.35% of crash-involved drivers in North Carolina were age 60 or older (see Table 7.A). This is much greater than their 11.9% representation in the overall population.

Table 7.A Numbers and Percentages of Crash involved Drivers by Age Group

(Jan 2005 through Dec 2005)			
Age Group	Number		Percent
24 or less	101311		24.5%
25 - 39	117965		28.5%
40 - 59	110117		26.6%
6 and above	83792		20.3%
Unknown	24		0.0%
Total	413209		100.0%

Information on the injury status of drivers involved in crashes is shown in Table 7.B. For all age groups combined, 0.3% of drivers were killed. This percentage is only slightly lower than for drivers over 60. (see Figure 7.B). Percentages of severe injuries are less elevated. These percentages fluctuated across crash years, due to the relative rarity of severe and fatal injuries, coupled with the relatively small numbers of crash-involved drivers in the oldest age categories.

Table 7B Age Group by Injury Level
(Jan 2005 through Dec 2005)

Age Group	Fatal	Col %	A	Col %	B+C	Col %	PDO	Col %	Unknown	Col %	Total	Col %
24 or less	242	21.6%	727	28.0%	22344	27.7%	76762	27.2%	1236	27.3%	101311	27.3%
25 - 39	370	33.0%	793	30.5%	25454	31.6%	89935	31.8%	1517	33.5%	118069	31.8%
40 - 59	308	27.5%	796	30.6%	24056	29.9%	83713	29.6%	1244	27.4%	110117	29.6%
60 and above	202	18.0%	284	10.9%	8680	10.8%	32316	11.4%	515	11.4%	41997	11.3%
Unknown		0.0%	1	5.9%		0.0%	2	1.0%	21	175.0%	24	6.4%
Total	1122	100.0%	2601	100.0%	80534	100.0%	282728	100.0%	4533	100.0%	371518	100.0%

Key Findings

- The number of crash-involved older drivers has shown only modest increases over the past 3 years. (“Baby boomers” have not yet entered the ranks of older drivers.)
- Once involved in a crash, older drivers are more likely than their younger counterparts to be severely injured or killed.
- Although drivers ages 65+ make up only 7.5% of the crash-involved driver population, they comprise 15% of fatally-injured drivers.

Temporal Characteristics of Older Driver Crashes

Three out of four crashes involving older drivers occurred between the hours of 10:00 a.m. and 6:00 p.m., and older drivers were especially overrepresented in crashes between 10:00 a.m. and 2:00 p.m. Very few, only about two percent, occurred at nighttime after 10:00 p.m. Again, these findings reflect the times when older adults are most likely to be on the road driving. As drivers age, this pattern of midday crashes becomes even more pronounced.

Older driver crashes are also more likely to occur on weekdays, although here the differences are relatively small. Overall in North Carolina, 78% of crashes occurred on weekdays (Monday – Friday) and 22% on weekends (Saturday or Sunday). For drivers ages 65+, 81% occurred on weekdays and 19% on weekends.

Key Findings

- Not surprisingly, older drivers tend to be involved in crashes during midday hours and on weekdays, reflecting the times they are most likely to be driving.

Roadway and Locational Characteristics of Older Driver Crashes

Overall, 62% of North Carolina crashes occur in the state's more highly populated Piedmont counties, 26% in its eastern coastal counties, and only 12% in its western mountain region counties. However, the western part of the state is home to a disproportionate number of older adults, and this is reflected in their crash data. With increasing age, the percentage of crashes occurring in the Mountain region counties increases, while the percentage occurring in the Piedmont counties declines. For drivers ages 85+, nearly one in five crashes (19%) are in the western Mountain region of the state.

Although older adults are under represented in crashes in the more urban Piedmont counties, their crashes are about equally likely to occur in urban areas, and increasingly so with age. Again, this likely reflects their greater exposure to potential crashes in urban driving environments and on urban roadways.

As drivers age, they are much less likely to be involved in crashes on Interstate and Secondary State Roads. Conversely, they are more likely to be involved in crashes on U.S. Route roadways and on local streets. Their crashes are also somewhat more likely to occur on private roadways, in parking lots, and so forth, especially for the oldest drivers.

Information with respect to the speed limits on roads mimics that of road type, with older drivers less likely to be involved in crashes on higher speed roadways, and more likely to be involved in crashes on lower speed roadways of 35 mph or less.

The crashes of older drivers are also much more likely than those of younger drivers to occur at intersections and especially those involving stop sign controls. .

Key Findings

- Nearly one in five drivers killed in crashes in the western Mountain region of the state is age 65+. As the North Carolina population ages, this proportion will rise, not only in western North Carolina but in all parts of the State.
- For the most part, older driver crashes tend to mimic the locations and situations where older adults drive, (i.e., on shorter trips, lower speed roadways, about town, during the daytime, under favorable weather conditions, etc.). Without more

detailed driving exposure data, however, it is not possible to identify what driving situations pose the greatest risk for older drivers. For example, without knowing how many miles older adults drive on interstate roadways or at nighttime, it is not known whether these situations pose greater risk to their safety.

Maneuvers, Contributing Factors, and Physical Conditions in Older Driver Crashes

The majority of all drivers (57%) are going straight ahead when they crash. Older drivers, however, are less likely to be going straight ahead and much more likely to be making a left turn. In fact, older drivers are nearly twice as likely as younger drivers to be engaged in a left turn maneuver at the time of their crash. Other types of maneuvers where older drivers are overrepresented include right turns, changing lanes, and starting in the roadway (e.g., when starting up at a green light).

Like the youngest drivers, older drivers are more likely to be cited for one or more contributing factors to their crash. At least by this measure, middle-aged drivers, ages 45-64, are the “safest” drivers on the road. Moreover, the likelihood of contributing to their crash increases with age. Nearly four out of five crash-involved drivers age 85 or above were cited for some contributing factor to their crash.

Based on the first contributing factor noted when more than one factor is cited, failure to reduce speed is the most frequently cited contributing factor, but is most prominent for drivers in the younger two age categories. For older adults, by far the most commonly cited contributing factor is failure to yield. While only cited for 17.6% of drivers overall, it is cited for 31% of drivers ages 65-74, increasing to 41% for drivers ages 85+. Other contributing factors that are over represented among older drivers include improper turning, disregard of traffic signal, and disregard of stop or yield signs (primarily the former). In contrast, older drivers are less likely to be cited for speeding, careless/aggressive driving, alcohol or drug use, or following too closely.

A final “crash characteristic” factor examined is the driver’s physical condition at the time of the crash. Although in reality a driver variable, this variable can provide insight into potential causative factors in crashes. Although the vast majority of older drivers are identified as being in a “normal” physical condition at the time of their crash, they are more likely to be impaired by a medical condition or by some other physical impairment. Interestingly, even though older adults are much greater consumers of medications, medication use does not appear in these data to be a factor in their crashes.

Key Findings

- Drivers ages 65+ are more likely to crash while making a left turn, and the crash risk increases along with their age.

- Older drivers are more likely to be cited for contributing to their crash, with the most commonly cited contributing factor being failure to yield to other traffic.

Conclusions

In terms of number of crashes, older adults do not yet represent a significant safety problem in North Carolina. However, this situation will change over the next decade as the large swell of baby boomers hits retirement age. Based on population growth alone, older driver crashes will more than double over the next 25 years. Older adults are by far the fastest growing segment of the North Carolina population.

If one is concerned about reducing traffic fatalities, older drivers already demand attention. The data analysis showed that while older adults represent 7.5% of all crash-involved drivers, they represent 15% of drivers killed in crashes. They also represent about 15% of pedestrians killed in crashes.

To reduce these numbers, most safety experts recommend a comprehensive approach that includes improvements to the driving environment (e.g., roadway markings, signage, traffic control, etc.), driver licensing practices (e.g., increased screening and licensing restrictions based on driver functional abilities), driver training and rehabilitation (e.g., driver refresher courses, adaptive vehicle equipment), increased public awareness, improved vehicle design, and greater access to alternative modes of transportation. Many excellent materials and resources exist.

8. SPEED-RELATED CRASHES

Driver speed is a function of several factors, e.g., posted speed limits, alignment, lane and shoulder width, design speed, land use, surrounding land use, traffic volumes, percentage of trucks in the traffic stream, weather, time of day, enforcement, visibility, vehicle operating characteristics, and driver factors such as risk taking behavior. Despite several studies that have attempted to establish relationships between driver speed and crash rates, the results are not consistent. Although there is some evidence to indicate that, on a given road segment, crash involvement rates of individual vehicles rise with their speed of travel, it is not clear if across all roads crash involvement rates rise with the average speed of traffic, i.e., we cannot assume that roads with higher average traffic speeds have higher crash rates than roads with lower average traffic speeds. Many have argued that there is a relationship between crash involvement rates and deviation from average speed. Speed is however directly related to the severity of a crash.

In North Carolina, for each driver involved in a crash, the investigating officer can indicate a maximum of three contributing circumstances. These contributing factors are intended to provide information on driver actions that probably lead to their involvement

in the crash. These contributing factors are not necessarily listed in any particular order, i.e., it is not necessarily that the first contributing factor was the most critical. There are 31 possible driver contributing factors, and three of these relate to speed: exceeding the posted speed limit, driving too fast for conditions, and failure to reduce speed. It is important to note that it is very difficult to get an objective measure of the true crash speeds of crash-involved vehicles. Numbers are typically based on estimates by the investigating officer and/or self-reports by the driver.

In the following discussion, ‘speed related crashes’ were identified by selecting all crashes where at least one of the contributing circumstances for at least one of the drivers was coded as exceeding the posted speed limit, driving too fast for conditions, and failure to reduce the speed.

Severity of Speed Related Crashes

Between 45 and 59% of fatal and injury crashes are speed related, whereas, just 35% of PDO crashes are speed related (Table 8.A).

Table 8.A Speed Related Crashes by Severity
(Jan 2005 through Dec 2005)

Severity	Non-Speed Related	Percent of Total	Speed Related	Percent of Total	Total
PDO	273415	95.2%	13846	4.8%	287261
Injury	71356	85.8%	11779	14.2%	83135
Fatal	560	55.0%	458	45.0%	1018
Unknown		0.0%	2011	100.0%	2011
Total	343320	92.4%	28094	7.6%	371414

Area Type

A higher percentage of crashes in rural areas are associated with speed compared to urban areas (Table 8.B). This is to be expected since roads in rural areas are usually associated with lower traffic volumes and allow speeding.

Table 8.B Speed Related Crashes By Area Type
(Jan 2005 through Dec 2005)

	Fatal	Injury	PDO	Unknown	Total
Rural	383	9378	10694	750	21941
%	83.6%	79.6%	77.2%	58.8%	78.1%
Urban	75	2401	3152	525	6153
	16.4%	20.4%	22.8%	41.2%	21.9%
Total	458	11779	13846	1275	28094

Driver Age

The under 24 age group is associated with the highest percentage of speed related crashes (Table 8.C). As drivers mature, the percentage of speed related crashes come down. Older drivers are associated with the least number of speed related crashes.

Table 8.C Driver Age By Speed
(Jan 2005 through Dec 2005)

Age Group	Not Speed Related	Percent of Total	Speed Related	Percent of Total	Total
Age 15 And Under	942	86.2%	151	13.8%	1093
Age 16	7151	85.7%	1189	14.3%	8340
Age 17	9403	86.9%	1415	13.1%	10818
Age 18	11339	86.2%	1809	13.8%	13148
Age 19	11045	87.6%	1570	12.4%	12615
Age 20	10940	89.1%	1344	10.9%	12284
Age 21-24	38693	90.0%	4320	10.0%	43013
Age 25-29	39427	91.8%	3509	8.2%	42936
Age 30-39	70300	93.7%	4729	6.3%	75029
Age 40-49	61404	95.0%	3242	5.0%	64646
Age 50-59	43694	96.1%	1777	3.9%	45471
Age 60+ or Unknown	38712	92.1%	3309	7.9%	42021
Total	343050	92.4%	28364	7.6%	371414

Time of Day

More crashes are speed related between 7:00 and 8:00 a.m., 3:00 and 5:00 p.m., and 1:00 and 3:00 a.m. It is possible that the relative high percentage of speed related crashes between 7:00 and 8:00 a.m. and between 3:00 and 5:00 p.m. is partly due to young drivers who drive to school in the morning and drive from school in the afternoon during these periods but a more likely reason might be adults commuting to and from work each day. The relatively high percentage of speed related crashes between 1:00 and 3:00 a.m. could be associated with alcohol.

Month of Year

In the last two years, January has seen a significant increase in the percentage of crashes that are speed related. It is not clear if this is a random variation or a systematic change in the pattern for speed related crashes.

Day of Week

Friday is associated with the highest number of speed related crashes. However, Fridays are also associated with the highest number of crashes. The percentage of speed related crashes are quite uniform over different days of the week.

Road Class

Interstate highways are associated with the highest speeds because they are designed to the highest standards. Interstates have the highest percentage of speed related crashes in North Carolina, although they have the lowest number of speed related crashes (Table 8.D). Local streets have the highest number of speed related crashes but the lowest percentage of speed related crashes.

Table 8D Speed Related Crashes By Road Type
(Jan 2005 through Dec 2005)

Road Class	Fatal	Injury	PDO	Unknown	Total
Interstate	29	1058	2158	69	3314
US	68	1564	2169	133	3934
NC	67	1532	1466	173	3238
SSR	219	5224	4901	1111	11455
LCL	71	2186	2758	431	5446
PP	2	36	46	12	96
PVA	2	179	348	82	611
Total	458	11779	13846	2011	28094

Speed Related Crashes by County

The rate of speed related crashes vary widely across North Carolina counties, as shown in Table 8.E. There are several factors that may influence why a particular county may have a high or low rate of speed related crashes including: number of young drivers in the county, extent of tourist traffic, and the type of road system in the county including the number of rural roads.

Table 8 E Speed Related Crashes by County
(Jan 2005 through Dec 2005)

County	Speed Related Crashes	Percent of Total Crashes	Total Crashes In County
Alamance	429	6.98%	6148
Alexander	151	18.17%	831
Alleghany	105	31.34%	335
Anson	98	11.32%	866
Ashe	165	18.84%	876
Avery	75	15.66%	479
Beaufort	113	6.17%	1832
Bertie	91	14.51%	627
Bladen	151	13.78%	1096
Brunswick	364	11.10%	3280
Buncombe	713	7.91%	9011
Burke	422	12.61%	3347
Cabarrus	306	4.39%	6971
Caldwell	260	9.57%	2718
Camden	25	10.55%	237
Carteret	154	6.80%	2266
Caswell	89	17.84%	499
Catawaba	438	5.78%	7574
Chatham	175	9.03%	1938
Cherokee	110	15.56%	707
Chowan	41	11.85%	346
Clay	45	16.79%	268
Cleveland	387	10.70%	3618
Columbus	332	16.25%	2043
Craven	261	8.55%	3052

Cumberland	636	4.46%	14268
Currituck	66	9.75%	677
Dare	76	4.47%	1699
Davidson	682	12.02%	5674
Davie	179	14.79%	1210
Duplin	214	10.85%	1973
Durham	627	4.25%	14737
Edgecombe	252	14.24%	1770
Forsyth	854	5.72%	14938
Franklin	194	12.74%	1523
Gaston	593	6.44%	9206
Gates	62	17.13%	362
Graham	96	36.92%	260
Granville	159	11.03%	1441
Greene	134	21.79%	615
Guilford	1119	5.28%	21192
Halifax	216	11.51%	1876
Harnett	305	9.98%	3056
Haywood	261	15.46%	1688
Henderson	402	9.95%	4039
Hertford	71	8.61%	825
Hoke	90	8.99%	1001
Hyde	22	16.79%	131
Iredell	571	8.72%	6545
Jackson	292	22.27%	1311
Johnston	583	10.04%	5804
Jones	52	13.68%	380
Lee	162	6.02%	2690
Lenoir	166	7.31%	2270
Lincoln	262	9.62%	2723
Macon	170	17.03%	998
Madison	125	30.64%	408
Martin	109	14.89%	732
McDowell	266	23.73%	1121
Mecklenburg	2068	4.53%	45620
Mitchell	67	13.90%	482
Montgomery	124	17.29%	717
Moore	198	7.09%	2792
Nash	403	10.37%	3885
New Hanover	277	2.53%	10964
Northampton	109	17.55%	621
Onslow	406	6.34%	6404
Orange	445	9.71%	4584
Pamlico	50	16.18%	309

Pasquotank	102	6.57%	1552
Pender	175	9.60%	1823
Perquimans	48	17.65%	272
Person	195	14.99%	1301
Pitt	341	5.26%	6481
Polk	141	29.07%	485
Randolph	651	13.29%	4898
Richmond	149	10.23%	1456
Robeson	560	11.32%	4949
Rockingham	392	13.66%	2870
Rowan	313	5.85%	5350
Rutherford	293	14.39%	2036
Sampson	317	14.29%	2218
Scotland	105	12.50%	840
Stanly	195	10.07%	1936
Stokes	245	20.15%	1216
Surry	421	16.51%	2550
Swain	94	27.25%	345
Transylvania	122	13.69%	891
Tyrrell	18	10.06%	179
Union	387	6.23%	6207
Vance	163	9.10%	1791
Wake	1394	3.58%	38932
Warren	111	24.24%	458
Washington	47	13.13%	358
Watauga	264	11.80%	2237
Wayne	325	7.49%	4337
Wilkes	312	13.69%	2279
Wilson	252	7.86%	3207
Yadkin	163	14.90%	1094
Yancy	62	16.32%	380
State Total	28072	7.56%	371414

Table 8.F shows the county listing in descending order by each county's speed related crashes shown as a percentage of their total crashes for the 2005 year. This ranking gives a better picture of the problem areas rather than simply looking at a total number. It ranks by action rather than by population.

Table 8 F Speed Related Crashes by County
Descending Order by
Percentage
(Jan 2005 through Dec 2005)

County	Speed Related Crashes	Percent of Total Crashes	Total Crashes In County
Graham	96	36.92%	260
Alleghany	105	31.34%	335
Madison	125	30.64%	408
Polk	141	29.07%	485
Swain	94	27.25%	345
Warren	111	24.24%	458
McDowell	266	23.73%	1121
Jackson	292	22.27%	1311
Greene	134	21.79%	615
Stokes	245	20.15%	1216
Ashe	165	18.84%	876
Alexander	151	18.17%	831
Caswell	89	17.84%	499
Perquimans	48	17.65%	272
Northampton	109	17.55%	621
Montgomery	124	17.29%	717
Gates	62	17.13%	362
Macon	170	17.03%	998
Hyde	22	16.79%	131
Clay	45	16.79%	268
Surry	421	16.51%	2550
Yancy	62	16.32%	380
Columbus	332	16.25%	2043
Pamlico	50	16.18%	309
Avery	75	15.66%	479
Cherokee	110	15.56%	707
Haywood	261	15.46%	1688

Person	195	14.99%	1301
Yadkin	163	14.90%	1094
Martin	109	14.89%	732
Davie	179	14.79%	1210
Bertie	91	14.51%	627
Rutherford	293	14.39%	2036
Sampson	317	14.29%	2218
Edgecombe	252	14.24%	1770
Mitchell	67	13.90%	482
Bladen	151	13.78%	1096
Transylvania	122	13.69%	891
Wilkes	312	13.69%	2279
Jones	52	13.68%	380
Rockingham	392	13.66%	2870
Randolph	651	13.29%	4898
Washington	47	13.13%	358
Franklin	194	12.74%	1523
Burke	422	12.61%	3347
Scotland	105	12.50%	840
Davidson	682	12.02%	5674
Chowan	41	11.85%	346
Watauga	264	11.80%	2237
Halifax	216	11.51%	1876
Anson	98	11.32%	866
Robeson	560	11.32%	4949
Brunswick	364	11.10%	3280
Granville	159	11.03%	1441
Duplin	214	10.85%	1973
Cleveland	387	10.70%	3618
Camden	25	10.55%	237
Nash	403	10.37%	3885
Richmond	149	10.23%	1456
Stanly	195	10.07%	1936
Tyrrell	18	10.06%	179
Johnston	583	10.04%	5804
Harnett	305	9.98%	3056
Henderson	402	9.95%	4039
Currituck	66	9.75%	677
Orange	445	9.71%	4584
Lincoln	262	9.62%	2723
Pender	175	9.60%	1823
Caldwell	260	9.57%	2718
Vance	163	9.10%	1791
Chatham	175	9.03%	1938

Hoke	90	8.99%	1001
Iredell	571	8.72%	6545
Hertford	71	8.61%	825
Craven	261	8.55%	3052
Buncombe	713	7.91%	9011
Wilson	252	7.86%	3207
Wayne	325	7.49%	4337
Lenoir	166	7.31%	2270
Moore	198	7.09%	2792
Alamance	429	6.98%	6148
Carteret	154	6.80%	2266
Pasquotank	102	6.57%	1552
Gaston	593	6.44%	9206
Onslow	406	6.34%	6404
Union	387	6.23%	6207
Beaufort	113	6.17%	1832
Lee	162	6.02%	2690
Rowan	313	5.85%	5350
Catawaba	438	5.78%	7574
Forsyth	854	5.72%	14938
Guilford	1119	5.28%	21192
Pitt	341	5.26%	6481
Mecklenburg	2068	4.53%	45620
Dare	76	4.47%	1699
Cumberland	636	4.46%	14268
Cabarrus	306	4.39%	6971
Durham	627	4.25%	14737
Wake	1394	3.58%	38932
New Hanover	277	2.53%	10964
State Total	28072	7.56%	371414

Summary of Findings

- Speed-related crashes are in general more severe compared to non-speed-related crashes.
- Speed-related PDO crashes have increased substantially in the last two years. However, the number of injury and fatal speed-related crashes has changed very little during this period.

- A higher percentage of crashes in rural areas are associated with speed compared to urban areas.
- The 16-17 age group is associated with the highest percentage of speed-related crashes.
- A large number of speed related crashes occur during the morning peak, the afternoon peak, and between 1:00 and 3:00 a.m.
- Interstates have the lowest number of speed-related crashes, but the highest percentage of speed-related crashes. Local streets have the highest number of speed-related crashes, but the lowest percentage of speed-related crashes.
- Close to 80% of crashes where a rear-end crash was the first harmful event, are speed-related. A significant percentage of crashes (close to 50%) where the first harmful event is a Jackknife/Overtake/Rollover, collision with a fixed object, or ran-off-the-road, are speed-related.

Enforcement and Public Information

Enforcement will be an effective speed management tool as long as the posted speed limits are credible. The problem with traditional enforcement is their short-lived effect in deterring speeding. It may be possible to boost the longevity of the deterrence effect is through a public information campaign coupled with enforcement. It would be worthwhile to target enforcement efforts on those roads and times when speed-related crashes are most common. Automated enforcement (e.g., photo radar) can be used to complement traditional enforcement techniques.

9. OCCUPANT RESTRAINT

Seat-belt usage in North Carolina is among the highest in the nation due to the primary enforcement law and successful 'Click It or Ticket' campaigns. The observed driver seat belt usage rate has increased from approximately 65% in the early 1990's to 88.5% in 2006.

Each year, GHSP conducts statewide a survey to determine the safetybelt usage rates for the state. This survey is conducted in accordance with NHTSA guidelines and policy. The latest survey was conducted following the Memorial Day 2006 campaign. The usage rate for drivers at that time was determined to be 88.9%. The corresponding usage rate for passengers was 86.3%.

Typically, the Piedmont and Coastal areas have a higher belt usage rate compared to the Mountain region. This year there was a shift in the usage rates during the Memorial Day survey. The usage rate in the Piedmont region was 89.3% and the Mountain Region was 90.3% while the Coastal region was 86.4% during this survey. Cars, SUVs, and Minivans, typically have the highest usage rates – close to 90% during the Memorial Day survey. The usage rates also increase with increase in age: middle-aged and older drivers typically having a higher usage rate compared to young drivers. There is a significant difference in the seat belt usage rates among men and women. The latest survey found that approximately 92% of women used a seat belt while 87% of men used a seat belt.

Restraint usage in crashes

The investigating officer provides information on restraint usage for individuals involved in an accident. Based on 2003 North Carolina Traffic Crash Facts, over 97% of drivers involved in a crash in 2003 had used a belt. Unfortunately, this information does not match the usage rate that is estimated from the statewide surveys. It is possible that in many cases, especially in PDO crashes, the investigating officer asks the driver or passenger if they were using a seat belt and a significant number of people who were not wearing a seat belt would probably not admit to their non-compliance. In the case of fatal crashes, a more detailed investigation is usually conducted, and can provide more accurate information on whether a seat belt was used when the crash occurred. According to the 2003 North Carolina Traffic Crash Facts, close to 58% of drivers who were killed in a crash were wearing a seat belt (low enforcement reported). For A level injuries, the corresponding usage rate was around 97% (self reported). For B and C injuries, and the No-Injury cases, the usage rate was between 89% and 99% (self reported).

**Table 1. Observed North Carolina Seat Belt Usage Rates:
New 121-site June 2006 Survey**

Category Subcategory	Unweighted	Weighted		Sample Size
	Use %	Use %	SE %	
Overall				
Driver	88.2	88.9	0.8	24,978
Passenger	83.3	86.3	1.2	6,576
Both	87.2	88.5	0.7	31,554
Urban / Rural				
Urban	89.0	89.2	0.8	15,239
Rural	86.9	86.8	2.2	9,739
Region				
Mountain	90.3	88.2	0.9	3,893
Piedmont	89.3	90.2	1.1	10,168
Coastal	86.4	85.8	1.2	10,917
Vehicle Type				
Car	90.2	91.2	1.1	12,815
Van	79.1	85.5	3.2	575
Minivan	92.0	90.7	3.2	1,762
Pickup Truck	81.2	78.9	4.8	4,842
Sports Utility	89.6	91.5	1.4	4,873
Sex of Driver				
Male	86.8	89.2	1.5	3,431
Female	92.0	93.7	1.3	2,651
Race/Ethnicity of Driver				
White	88.6	90.6	1.2	4,660
Black	90.0	89.3	2.1	1,105
Hispanic	91.0	93.5	2.4	210
Asian	98.4	99.7	0.3	61
Age of Driver				
16-24	85.6	92.0	2.1	849
25-44	89.4	90.4	1.2	3,253
45-64	89.9	92.6	2.0	1,429
65+	90.2	90.7	3.5	552

**Table 2. Observed North Carolina Seat Belt Usage Rates by County:
New 121-site June 2006 Survey**

County Name	Driver (D)	Passenger (P)	Both (D + P)	Sample Size (N)
Alamance	91.5	84.8	90.6	2,160
Buncombe	89.3	83.9	88.1	1,462
Burke	92.2	88.7	91.3	1,263
Craven	92.6	90.5	92.2	2,303
Cumberland	84.1	68.6	81.7	1,496
Gaston	82.4	74.7	80.5	1,770
Granville	81.4	78.4	80.8	1,211
Mecklenburg	88.4	85.2	88.2	1,671
New Hanover	86.0	81.9	85.1	2,847
Pitt	83.9	79.6	83.2	1,765
Robeson	72.5	62.7	70.4	914
Stanly	85.7	81.8	85.1	1,296
Wake	94.2	89.8	93.5	2,089
Wayne	86.9	85.2	86.6	1,607
Wilkes	90.1	85.7	88.9	1,185

Table 3: Observed (Weighted) Seat Belt Use in North Carolina (%)

Observed (Weighted) Driver and Right Front Passenger Seat Belt Use (%)												
	SURVEY PERIODS											
	1997¹				1998			1999			2000	
	Apr	Jun	Sep	Dec	Jun¹	Sep¹	Oct²	Apr¹	Jun¹	Nov²	Jun³	Sep³
Driver	81.5	82.7	83.9	81.0	82.2	82.0	77.7	81.0	83.5	79.7	81.6	80.3
RF Passenger	78.4	78.7	79.6	77.6	79.2	77.0	72.7	77.7	80.8	71.0	76.1	74.7
Front Seat (D+RF)	80.8	81.8	83.0	80.3	81.7	81.0	76.7	79.9	82.3	78.6	80.5	79.2

	SURVEY PERIODS													
	2001			2002		2003			2004		2005		2006	
	May³	Jun³	Sep³	Jun³	Sep³	Apr³	Jun³	Sep³	Apr³	Jun³	Apr⁵	Jun⁴	Apr⁶	Jun⁴
Driver	80.9	83.6	83.0	84.9	84.5	85.1	87.3	85.7	85.2	86.9	86.2	86.9	87.6	88.9
RF Passenger	74.8	79.1	77.3	80.6	76.5	79.2	81.0	80.4	79.1	82.0	82.2	85.6	84.4	86.3
Front Seat (D+RF)	79.6	82.7	81.9	84.1	82.7	84.1	86.1	84.7	83.8	86.1	85.4	86.7	86.9	88.5

¹ 72 site survey

² 306 site survey

³ 152 site survey

⁴ 121 site survey

⁵ 50 site mini-survey

⁶ Revised 50 site mini-survey

Table 4. Observed Seat Belt Use in North Carolina (%)

	2001			2002		2003			2004		2005		2006	
	May ¹	Jun ¹	Sep ¹	Jun ¹	Sep ¹	Apr ¹	Jun ¹	Sep ¹	Apr ²	Jun ¹	Apr ²	Jun ⁴	Apr ³	Jun ⁴
Overall (D+RF) Rate⁵	79.6	82.7	81.9	84.1	82.7	84.1	86.1	84.7	83.8	86.1	85.2	86.9	87.6	88.5
Region														
Mountains	76.3	77.6	79.0	81.1	80.5	80.5	85.5	83.4	88.7	84.9	87.6	90.0	88.3	90.3
Piedmont	82.8	85.1	85.3	85.8	86.2	87.1	89.4	88.0	86.3	88.1	86.8	88.4	89.6	89.3
Coast	83.9	87.2	85.6	85.7	87.5	85.8	88.3	83.4	85.0	86.8	86.8	86.9	86.4	86.4
Vehicle Type														
Car	86.0	88.0	88.1	88.5	89.2	89.0	91.4	89.2	88.5	90.1	89.1	90.0	90.2	90.2
Van	63.1	70.7	68.4	70.9	71.1	71.4	74.9	67.3	75.1	74.9	72.6	75.9	74.3	79.1
Pickup	70.0	74.1	73.6	75.4	76.8	76.3	80.8	75.7	77.9	79.2	79.4	80.9	81.4	81.2
Sports Utility	84.2	85.4	85.8	86.4	87.5	87.0	90.2	88.2	87.5	89.9	88.5	89.1	89.8	89.6
Sex of Driver														
Male	77.6	81.1	80.2	82.5	83.0	83.0	85.6	82.5	82.8	85.3	83.0	85.6	85.4	86.8
Female	88.3	89.9	90.2	91.1	91.2	91.9	93.7	91.5	91.6	92.5	92.6	92.5	92.5	92.0
Age of Driver														
16-24	75.4	78.6	78.4	81.1	83.0	84.6	86.0	81.5	83.8	84.2	86.2	84.5	83.1	85.6
25-44	83.0	85.2	84.7	85.9	86.5	86.8	89.1	85.7	85.9	88.3	86.8	88.1	89.0	89.4
45-64	82.8	86.6	85.6	87.3	86.7	86.2	88.9	88.7	87.7	89.2	86.7	91.0	89.2	89.9
65+	83.7	86.2	87.1	91.7	90.1	90.2	91.0	91.3	90.5	92.5	92.6	91.3	92.0	90.2
Race / Ethnicity														
White	81.8	84.2	84.1	85.7	86.1	86.6	89.0	86.1	87.3	88.1	87.4	88.8	88.6	88.6
Black	83.5	86.8	85.9	87.1	87.3	86.3	89.0	86.5	83.7	88.5	85.0	87.1	87.6	90.0
Hispanic	84.3	88.6	84.6	85.4	87.5	90.6	87.9	86.4	84.9	91.6	92.5	88.1	91.1	91.0

¹ 152 site survey

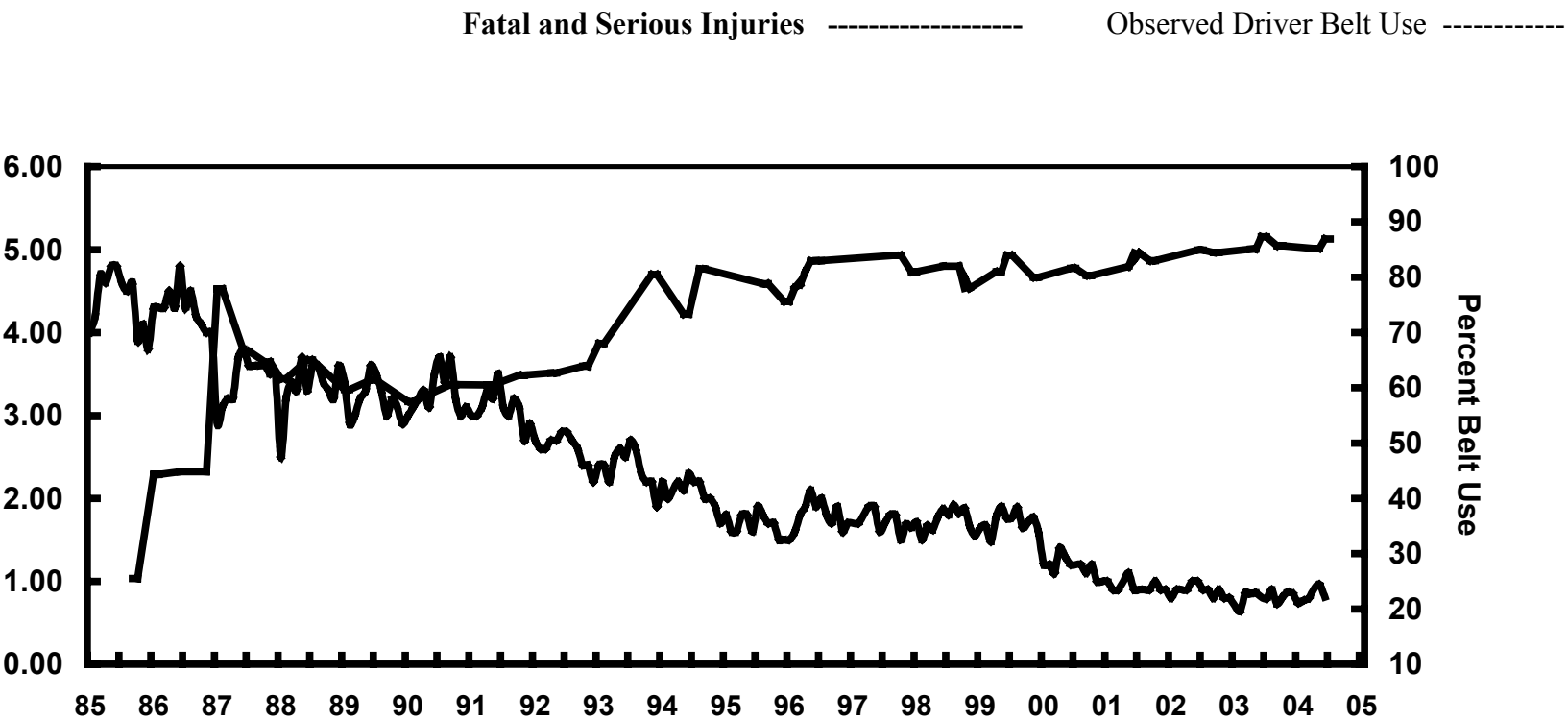
² 50 site mini-survey

³ Revised 50 site mini-survey

⁴ 121 site survey

⁵ Weighted Overall (D+RF) Rate

FIGURE 1
NC DRIVER SEAT BELT USAGE AND COVERED OCCUPANT INJURY RATES



10. Commercial Motor Vehicles

CMV Crashes by Injury Severity Level

In 2004 (1) out every (8) traffic fatalities (12.72%) in North Carolina resulted from a crash involving a commercial vehicle. 198 persons died on our highways, an increase of 22% over 2003. This ranked North Carolina 5th in the nation in large truck related fatalities.

Table 10.A 2004 CMV Crashes vs All Vehicle Crashes

(Jan 2004 through Dec 2004)

Type Crash	Number of CMV Crashes	Percent of Total CMV Crashes	Number All Vehicle Crashes	Percent of Total Veh Crashes
PDO	5,079	65.86%	145774	63.31%
Injury	2511	32.56%	83044	36.07%
Fatals	122	1.58%	1,423	0.62%
Total	7,712	100.00%	230,241	100.00%

Findings

- Large truck-related crashes are, in general, more severe compared to non-large truck related crashes because of the dynamic energy created by the mass/weight of these vehicles.
- Large truck-related fatal crashes (182) for year 2004 were 8.4% of vehicle involvement but accounted for (198) 12.72% of fatalities an increase of 22% large truck-related fatalities over 2003 in North Carolina.
- (1) out of (8) traffic fatalities in North Carolina in 2004 resulted in a collision involving a large truck.

Commercial Motor Vehicles by Type

Commercial motor vehicles are comprised of a number of different types and sizes of vehicles. Commercial motor vehicles for this report are defined as trucks with a GVWR of 10,000 lbs. or more. Table 10.B breaks down the vehicles by type and crash involvement.

Table 10.B
Involvement

Type CMV by Crash

CMV Type	2003		2004		Total
	Number	Percent	Number	Percent	
2 axle, 6 Tire	4440	32.09%	4575	32.32%	9015
3 Axle	1698	12.27%	1780	12.57%	3478
Truck/Trailer	2010	14.53%	2014	14.23%	4024
Tractor	353	2.55%	320	2.26%	673
Tractor/Semi-Trl	4878	35.26%	4977	35.16%	9855
Tractor/Doubles	128	0.93%	122	0.86%	250
Unknown CMV	329	2.38%	369	2.61%	698
Total	13836	100.00%	14157	100.00%	

Findings

- Tractors with semi-trailers are highly over represented in CMV crashes being over 1/3 of all CMV involved crashes in NC.
- 2 axle, 6 tire rank second in CMV involved crashes with just under 1/3 of the crashes.

Summary of Commercial Motor Vehicle Crash Findings

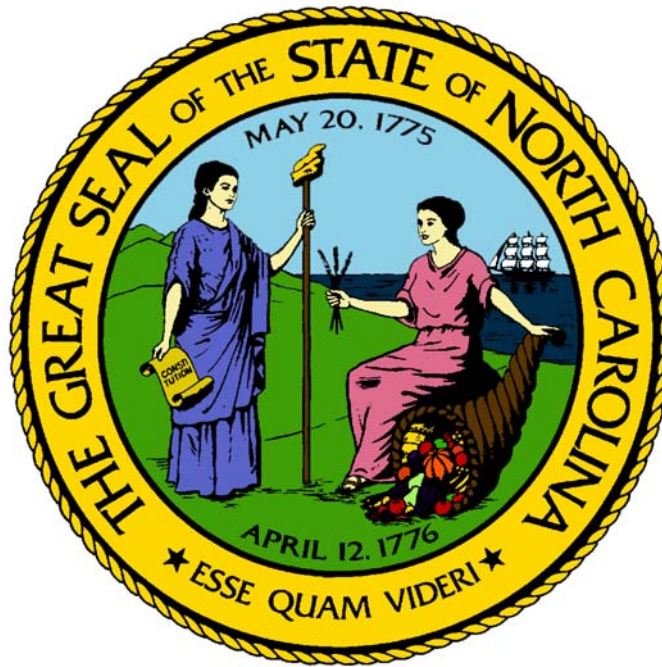
- The fatal rate in CMV involved-crashes is over 250% higher than non-CMV involved crashes.

- The Driver of the CMV is injured in about 8% of the CMV involved crashes, whereas occupants of other involved vehicles are injured over 31% of the time.
- CMV's are more likely to be involved in fatal multiple-vehicle crashes as opposed to a fatal single-vehicle crash, than were passenger vehicles.
- Of all large truck-related fatal crashes, 65% involved frontal impact of the large truck, which means that stopping distance of large truck was a factor.

APPENDIX D

GOVERNOR'S DWI TASK FORCE FINAL REPORT

Governor's Task Force on Driving While Impaired



FINAL REPORT TO GOVERNOR MICHAEL F. EASLEY JANUARY 14, 2005

The Governor's Task Force on Driving While Impaired

Final Report to Governor Michael F. Easley

January 14, 2005

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Appendix 35

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II. Prologue

It is the purpose of the Governor's Task Force on Driving While Impaired (DWI) to make recommendations regarding how North Carolina's DWI system can be improved. To do so, it is necessary to recognize the areas where the State is making solid progress. Future DWI laws can build on these successes and make them a model for improved DWI system practices.

The number of fatalities related to DWI has steadily declined over the past four years in North Carolina.

Crash data shows that the number of traffic deaths related to impaired-driving crashes in North Carolina has steadily decreased since 2000. The National Highway Traffic Safety Administration (NHTSA) reports a decrease in the national DWI crash-related death toll as well.

- Between 1982 and 2001, North Carolina experienced a 70 percent reduction in fatal alcohol crashes, according to NHTSA.
- There are several factors in the decrease in DWI deaths and the increase in alcohol-related arrests. The nationally recognized "Booze It & Lose It" high-visibility enforcement and public education program has played a significant role, as have the efforts of key law enforcement, judicial and treatment partners, as well as members of community-based advocacy groups.

1. North Carolina has a history of being tough on impaired driving.

- This is not the first time that North Carolina has convened a task force on impaired driving. The first Governor's Task Force on Driving While Impaired was formed in 1994 under Gov. Jim Hunt and presented its final report in December 2000. Numerous recommendations from the report later became law.
- Since the comprehensive rewrite of the impaired driving laws in the 1984 Safe Roads Act, the N.C. General Assembly has made numerous changes and adjustments to the impaired driving laws with the aim of reducing impaired driving including:
 - Lowering the alcohol concentration level from 0.10 to 0.08
 - Increasing the legal drinking age to age 21
 - Making it a crime for anyone under the age of 21 to drive after drinking any amount of alcohol
 - Making it a crime for anyone to drive a school bus, a school activity bus or a child care vehicle after drinking any amount of alcohol

- Making it a crime for anyone to drive a commercial motor vehicle after drinking any amount of alcohol
- Making it a crime to have open or unopened containers of alcoholic beverage in a commercial motor vehicle
- Making it a crime to have an open container of alcoholic beverage in a vehicle whether driven or parked on a highway right of way
- Making it a more serious crime to have an open container of alcoholic beverage in a vehicle if the driver has had any alcohol to drink
- Extending the pretrial civil revocation from 10 to 30 days
- Extending the pretrial civil revocation from date of arrest to date of conviction including any appeal if the driver has more than one DWI charge pending
- Increasing from 14 to 30 days the mandatory jail time for the most serious Level I punishment for impaired driving
- Increasing punishment to a minimum of seven days in jail for impaired drivers who have a child under age 16 in the car
- Increasing punishment for those with higher alcohol concentrations
- Requiring an ignition interlock for persons with 0.16 or higher alcohol concentration
- Making it a felony to be convicted of a fourth DWI within seven years
- Requiring a substance abuse assessment prior to issuing a limited driving privilege
- Requiring an assessment and education or treatment in order to terminate the drivers license revocation for DWI and allow reinstatement of drivers license
- Requiring lower alcohol concentration levels for persons who have been revoked for impaired driving offenses and obtain a new drivers license
- Seizing and forfeiting of vehicles driven by persons who are impaired and whose license is revoked for an impaired driving offense

2. North Carolina's breath-alcohol testing mobile units, better known as BATMobiles, are a nationally recognized resource for processing impaired drivers.

- The State's six BATMobiles are equipped with all of the necessary sobriety testing equipment found in a permanent law enforcement testing facility, including an office for an onboard magistrate.
- BATMobiles can be used onsite in high DWI incident locations, serving to both increase the efficiency of DWI processing and provide high-visibility notice to motorists that impaired driving will not be tolerated on North Carolina roadways. The BAT units help to dramatically increase efficiency and reduce processing time, allowing officers to return more quickly to other patrol duties.
- The State recently increased its fleet of BATMobile units to six. While other states have mobile testing units, none provide the comprehensive resources and reliable equipment found on BATMobiles.

3. North Carolina received the prestigious State Award from the National Commission Against Drunk Driving (NCADD) in 2003.

- The State was recognized for its efforts to combat drunk driving in 2003. North Carolina previously received this award in 1997.
- NCADD also recognized Gov. Mike Easley and Transportation Secretary Lyndo Tippet for the success of “Booze It & Lose It” and a 70 percent reduction in fatal alcohol crashes between 1982-2001.
- Former Gov. Jim Hunt received the Leadership Award from NCADD in 1995. Insurance Commissioner Jim Long received the same award in 1998.

4. The Responsible Alcohol Sales and Service (RASS) Advisory Board is presently developing a model seller/server training program for alcohol outlets.

- Formed in 1998, RASS is a unique coalition of retail, wholesale, public health and law enforcement organizations committed to reducing sales of alcohol to underage and intoxicated persons.
- Employees of alcohol outlets across the state are not uniformly trained in the laws that address alcohol sales to underage and/or intoxicated persons. By uniting retail outlets, health officials and law enforcement, RASS aims to increase awareness of laws and consequences **while decreasing unlawful alcohol sales.**

5. A pilot program to address a backlog of DWI cases has been a success in Wake County District Court.

- The Governor’s Highway Safety Program (GHSP) funded in FY 2003-04 a pilot DWI Court in Wake County to assist with the backlog of DWI cases.
- Currently, many counties are overwhelmed with DWI cases, leading to delays in adjudication, and in extreme examples, dismissals of cases. The pilot program created a DWI-only court, which has permitted more timely resolution of cases. It also has substantially increased the local conviction rate.
- Wake’s DWI Court has been so successful that it is expected to reach its stated goals in advance of its deadline and, potentially, under budget. This program has strong potential to be replicated elsewhere.

6. The Administrative Office of the Courts (AOC) is developing the Criminal Court Information System (CCIS) to improve the efficiency of the courts.

- CCIS would act as a statewide data resource, increasing access to information from the criminal and traffic courts on prosecution of offenders and allowing for study of conviction rates and court procedures in different counties.
 - CCIS would also provide for electronic citation (“e-Citation”). Electronic citation allows for electronic transfer of information from patrol cars to the court system and eventually to the Division of Motor Vehicles (DMV).
 - The various DWI-involved partners need a comprehensive data resource to link the entire system, improve tracking and increase efficiency.
- 7. The nationally-recognized DWI Court program in Mecklenburg County has been successful in encouraging proper treatment and compliance with sanctions for repeat DWI offenders.**
- The DWI Court program offers intensive supervision of repeat DWI and drug offenders to ensure that offenders are fulfilling their obligations to seek treatment.
 - Offenders under the supervision of the DWI Court receive regular checkups from probationary officers and are required to receive treatment sessions.
 - The goal of the program is to reduce recidivism among convicted DWI and drug offenders. It was recognized by the NCADD in 2004 as a model court to host training for other jurisdictions developing similar programs.
- 8. The Traffic Safety Resource Prosecutor (TSRP) located within the Conference of District Attorneys has been successful in developing standardized training for prosecutors in DWI cases since its creation in 2003.**
- North Carolina was one of the first states to implement this program, which provides quality ongoing training to prosecutors for DWI cases. Previously, North Carolina had no formalized training for prosecution of extremely technical DWI cases.
 - The TSRP also is a resource for legal issues raised in the trial courts throughout the state.
 - The TSRP provides for training law enforcement and prosecutors together to increase the effectiveness of the system.
 - TSRP is a valuable resource to the criminal justice system, which many times pits an inexperienced prosecutor against an experienced defense attorney.

Study Items

These items have been identified by the Task Force as requiring further study to determine their potential benefits.

1. A study commission should be created to determine whether an excise tax on alcohol could be a deterrent to drunken driving and underage consumption.

- Studies show that the increased prices of tobacco have been successful in lowering teen smoking. Likewise, the increased cost of alcoholic beverages could lower alcohol sales and, in turn, reduce the incidence of impaired driving. This would impact users only and could be useful as a deterrent to underage consumption and impaired driving in North Carolina.

2. A study commission should be created to determine the feasibility of recording and maintaining positive identification of DWI offenders.

- Currently, there are no procedures in place that effectively maintain positive identification of offenders charged with DWI, such as required fingerprinting of all or only convicted offenders. Challenges currently exist in connecting offenders who change their names or addresses to their records.
- A study commission should be created to determine the financial feasibility of various positive identification procedures, identify the personnel and equipment available to implement these procedures, and allow for integration with other efforts currently underway on the state and federal level for positive identification.

III. Recommendations of the Governor's Task Force on Driving While Impaired

Integrated solutions

These solutions have been identified by members of the Task Force as affecting multiple aspects of the DWI system.

See the Appendix for proposed statutory language changes.

**1. The authority for administering Limited Driving Privileges (LDP) should be moved from the criminal justice system to the Division of Motor Vehicles (DMV).
(See Appendix A)**

- Under the current system, the defense attorney drafts the LDP and submits it to the judge for signature.
- Drivers who do not have an attorney either do not obtain an LDP or must rely on the court to find an attorney willing to help.
- Moving the authority to issue LDPs to DMV will allow all eligible drivers to obtain an LDP and will assure that the restrictions on driving intended by the General Assembly will be imposed consistently throughout the State.
- DMV, which is already in charge of all other conditional driver licenses with similar restrictions as a LDP, has the trained personnel and procedures necessary to issue LDPs.

**2. An integrated data system should be created to unite and make uniform the many databases containing information regarding how impaired drivers are charged, adjudicated, sanctioned and treated for substance abuse.
(See Appendix B)**

- Currently, information on arrests, prosecution, sanctions, treatment and driver licensing are maintained in separate databases. These databases are public records but are not readily accessible to the public and other involved agencies. There needs to be one database that links all of the separate databases on the DWI system. All participants in the system would have access to the integrated data system.
- DWI offenders participating in the system are not adequately identified and, as such, often cannot be tracked or their records verified. As a result, the effectiveness of the laws, the criminal sanctions, licensing restrictions and treatment relating to impaired

driving cannot be readily determined.

- This system also will provide a better assessment of the successes and inadequacies of the DWI system.
- All involved agencies would be required to contribute their information in real time. The integrated data system would link law enforcement, judicial officials, the DMV, and treatment and service providers.
- Information must be available online.
- Annual reports would be provided to the General Assembly.

3. Increase the number of publicized checkpoints and/or saturation patrols to at least one enforcement event every 30 days within those counties representing 60% of the DWI crashes for the prior year.

- As recommended by the National Highway Traffic Safety Administration (NHTSA), the number of required law enforcement checkpoints and/or saturation patrols should be increased.
- The high-visibility presence of law enforcement is shown in numerous studies to deter impaired driving and other traffic offenses; i.e., it will increase both *the perception and the reality* of detection and punishment. Enforcement events should be highly visible and well publicized in order to increase their effectiveness.
- The number of State Highway Patrol troopers will need to be examined to determine if there are adequate resources to accomplish this goal.

4. An electronic citation system (“e-Citation”) should be fully implemented in order to increase accuracy and decrease the time spent processing a DWI arrest.

- Currently, a DWI arrest takes at least one hour and 15 minutes to process, but two to three hours or more is typical. An officer must write the information contained on the citation onto several other court forms. The citation and court forms are filed with the Clerk of Superior Court who must decipher the officer’s handwriting and enter the citation information into the Administrative Office of the Courts’ (AOC) computer.
- Officers have a specific protocol to follow, including proper documentation of the arrest. Inconsistent data on the numerous court forms, and the amount of time taken to process an arrest, can lead to a dismissal of the DWI charge.
- E-Citation would speed up the arrest process and return officers more quickly to other patrol duties.

- There are approximately 1.2 million citations for all types of misdemeanors and infractions filed with the court every year. E-Citation will save the Clerks of Superior Court thousands of hours of data entry time on an annual basis.
 - E-Citation will increase the accuracy of court and DMV records.
- 5. A State DWI Oversight Committee should be created for the purpose of monitoring all aspects of the DWI process and for making recommendations to address weaknesses in each judicial district.**
- This committee would be constituted of select judicial experts and key partners who would use the integrated data system to identify judicial districts that have large backlogs of DWI cases, that have a large percentage of non-compliance with sanctions, treatment or payment of funds or other failure to meet criteria established by the committee.
 - When a judicial district fails to meet specific criteria, this committee would identify available support and resources from the State agencies that can most effectively address the particular local issue(s).
 - This committee should also establish best practices for judicial districts to follow to meet the criteria.
- 6. The current 30-day pretrial civil drivers license revocation should be extended to last until adjudication for all drivers arrested for a DWI (1) with no prior convictions within the last 10 years, (2) having a blood alcohol concentration (BAC) of 0.08 or more (0.04 or more in a commercial motor vehicle (CMV) or 0.01 or more if under age 21) but less than 0.16, (3) and with no other pending DWI related charges. (See Appendix C)**
- *Note: This solution is dependent on approval of No. 7 as well.*
 - Drivers who have consumed this amount of alcohol and driven have shown that they should not be allowed to continued to drive with unrestricted drivers licenses, but should be restricted by a LDP to no driving after drinking.
 - Currently, these drivers have their license revoked for a period of 30 days and until a \$50 fee is paid. However, after 10 days, the driver can obtain a LDP from the court for the remaining 20 days. Unless the driver has other pending DWI related cases, at the end of 30 days the driver obtains an unrestricted drivers license.
 - Under the recommendation, after 10 days drivers may obtain an LDP if a DWI Substance Abuse assessment is completed and treatment or education has begun and have paid the \$50 fee. The LDP lasts for the balance of the revocation period.

- An effect of this change will be to encourage drivers to resolve their charges. Currently, defendants can receive multiple continuances on their court date and continue to drive without restriction, providing little motivation to settle their case in court. Excessive continuances can also lead to dismissal of criminal charges without the driver obtaining the education or treatment needed.
 - The revocation will last until trial and all appeals of charges as the law currently provides for drivers with two or more pending charges.
 - For purposes of this recommendation, a prior conviction means a prior DWI, a DWI in a CMV, felony DWI, vehicular homicide involving DWI, driving after drinking by a person under the age of 21, and out of state convictions of a similar nature.
 - Under the new system, the magistrate will revoke the drivers license just as is done now. The DMV would issue the LDP and hold all hearings on the revocation. The fee goes towards supporting the Intoxilyzer program as it currently does by way of the \$50 license reinstatement fee (G.S. 20-16.5).
 - Drivers who choose not to obtain a LDP will be required to pay the \$50 fee to reinstate their license at the end of the revocation as currently provided in G.S. 20-16.5.
- 7. An ignition interlock should be installed promptly after arrest and before trial for all drivers who are arrested for a DWI (1) with a BAC of 0.08 or more (0.04 or more in a CMV or 0.01 or more if under age 21) and prior conviction within the last 10 years, (2) a blood alcohol concentration (BAC) of 0.16 or more, (3) a pending DWI related charge, or (4) who refuse any tests to determine BAC.**
(See Appendix C)
- These drivers have engaged in more potentially dangerous conduct and should be more restricted in their ability to drive than the drivers identified in Recommendation No. 6. Simply revoking the drivers license does not prevent these kinds of offenders from continuing to drive. Ignition interlock programs do effectively prevent impaired driving by such individuals while the interlock is installed.
 - The law currently provides that every driver who is convicted of DWI and has a BAC of 0.16 or more or a prior conviction within the last seven years must have an ignition interlock installed on their vehicles. Nonetheless, for the last several years over 13,000 arrested drivers had BAC's higher than 0.16, yet only 3,500 drivers have ignition interlocks.
 - This solution would potentially impact 35,000 impaired drivers in the first year.
 - Numerous studies have shown the ignition interlock greatly reduces recidivism among drinking drivers.

- This solution would amend the current 30-day civil revocation for affected drivers. It would become an administrative procedure implemented by the DMV, as defined below:
 - a. The driver's license is revoked for 10 days, after which time the driver may obtain an LDP that limits the driver to operation of a vehicle with an ignition interlock.
 - b. The law enforcement officer will seize the vehicle's license plate at the time of arrest and issue a temporary plate valid for 10 days to allow the driver to have the ignition interlock installed. The license plate shall not be returned until the person obtains an interlock, at which time he or she would pay a \$50 fee for a new standard license plate. If the person cannot afford the fee for installation and maintenance of the interlock device, they will be aided by an "indigent fund" to be established.
 - c. If the arrested driver is not the owner of the vehicle, the DMV shall require a signed acknowledgement from the owner of the vehicle that the arrested driver will not be allowed to operate that vehicle in order to get the license plate back, as provided in G.S. 20-28.2.
 - d. There should also be a restriction on the person's drivers license limiting the driver to operation of a vehicle with an ignition interlock, as provided in G.S. 20-17.8.
 - e. If the arrested driver violates the ignition interlock requirement, his or her vehicle will be seized and sold (as provided in G.S. 20-28.2) and given a mandatory 30-day house arrest or seven days of jail time after conviction, at the discretion of the court.
 - f. In order for the ignition interlock to be removed, the arrested driver must provide evidence to DMV that he or she has completed the required level of substance abuse service as determined by a formal DWI substance abuse assessment.
 - g. The data record on the ignition interlock also would be reviewed for independent corroborating evidence of the individual's success in controlling drinking. Along with evidence that the individual has not tried to start the vehicle with an elevated BAC for four continuous months, there must be sufficient evidence that the vehicle has been used and not simply parked for that time.
 - h. All pending charges also must have been resolved in order to have the ignition interlock removed.
 - i. Change the implied consent rights to include that the ignition interlock is required if the BAC test is refused (G.S. 20-16.2).

8. An educational program should be developed in order to educate the law enforcement community, judicial system personnel, the treatment system and the general public upon legislative action on the recommendations of the Task Force.

- The legislative, administrative and operational changes suggested by the Task Force affect all aspects of the DWI system.
- An education program is needed to inform those affected by any legislative action resulting from these Task Force recommendations in order to assure effective implementation of these changes.
- The educational programs should be held in a number of locations across the State.

Prior To Arrest

These solutions have been identified by members of the Task Force as affecting the time prior to the arrest of a drinking driver.

9. Alcohol Law Enforcement (ALE) should increase the percentage of routine compliance checks at alcohol outlets.

- There is not a sufficient number of compliance checks to determine if store clerks and bartenders are selling or serving alcohol to underage or intoxicated patrons.
- Current ALE manpower allows agents to perform compliance checks in just 10 percent of outlets; however, all complaints are fully examined. ALE needs adequate resources to perform more routine checks.

10. Increase focus on compliance checks of outlets identified as problematic.

- ABC rules often are violated repeatedly by the same outlet. ALE should increase the rate at which these non-compliant outlets will be checked. The goal is to increase compliance with ABC regulations.
- As such, repeat violators should face increased likelihood of permit revocation if irresponsible activity continues.

11. ABC and ALE, in collaboration with other appropriate parties, should continue to develop and adopt a model state plan for comprehensive server/seller training and enforcement that (1) focuses on eliminating sales to minors and intoxicated persons, (2) is evidence-based, and (3) is proactive and prevention-oriented.

- ABC, ALE, and Responsible Alcohol Sales and Service (RASS) are jointly preparing a comprehensive Server/Seller Training Program.

- Currently, ABC does not require applicants for permits to demonstrate that their employees have been trained in ABC law or rules relating to selling or serving to underage or intoxicated individuals. The plan being developed should establish standards for training and compliance for both permit holders and servers/sellers.
- This multi-faceted approach would facilitate and maintain compliance by rewarding excellence, providing deterrents, and targeting law enforcement efforts on those who violate the laws. This model should meet the following criteria:
 1. Provide a meaningful, on-going evaluation component to determine what works and to maintain the quality of training and implementation.
 2. Establish minimum, evidence-based standards for training programs.
 3. Support consistent and fair regulation, enforcement and adjudication (including mitigation of penalties, the use of alternative sanctions, and, if necessary, suspension of permits).
 4. Meet the needs of on- and off-premise establishments (e.g., tailor training for varied needs of different types of establishments; provide delivery options that fit into existing business practices).

12. Local law enforcement agencies should be required to participate in effective DWI enforcement operations to qualify for State highway safety grants.

- Currently, the emphasis on training for and participation in DWI enforcement by local law enforcement agencies varies from jurisdiction to jurisdiction.
- The General Assembly has made DWI enforcement a primary point of emphasis and consequently, when local agencies seek State resources for highway safety projects, they should demonstrate that they have an effective DWI enforcement program.
- Some grant providers, such as the Governor's Highway Safety Program (GHSP), already require that a jurisdiction participate in effective DWI enforcement programs to qualify for grant funding.

13. Expand the DMV Drivers License Identification (ID) Verification program.

- A study of sales to minors indicated that one half of the merchants who sold to minors checked the ID and still sold. The data did not indicate whether the merchant misread the ID or simply ignored it.
- Currently, sellers of alcohol must be able to determine age from the ID and do not have an effective way to verify that the drivers license presented is valid and the date of birth is correct.
- In 2001, the General Assembly authorized DMV to operate a system where ABC permit holders can check the validity of a drivers license and the date of birth shown

on the license at the time that the person is attempting to purchase alcohol or enter a permitted establishment (G.S. 20-37.02).

- DMV is working with industry partners to identify and secure resources for development of the verification system.
- The verification system should be adequately funded and implemented as soon as possible.

14. A special-use permit, provided by the local ABC board, should be created for off-premises keg sales.

- Underage youth obtain about 65 percent of their alcohol from adult providers. Kegs are a particularly popular source of alcohol among those under the age of 21 because they are convenient, inexpensive and hold a large volume of beer.
- A keg special-use permit would be similar to the existing ABC permit required for transporting large amounts of liquor. That existing permit is administered by local ABC boards and/or the Sheriff's Office.
- Approximately 320,000 kegs of beer are sold annually as off-premise sales. This represents about two percent of beer sales in North Carolina.
- The intent of the special use permit process for kegs is to increase compliance with adult provider and social host laws.
- Unlike a keg registration system, which provides a way to identify the purchaser in the event a violation occurs, the emphasis of this type of approach would be on preventing youth access to alcohol by increasing the accountability and consequences of the adult providers.

15. All law enforcement officers should be allowed to enter private alcohol-selling establishments to the same extent that the patrons are allowed in order to enforce statutory law.

- Currently, holders of ABC permits are only required to allow ALE agents, local ABC officers and law enforcement officers under contract with a local ABC board to enter their premises. They can prohibit entry by all other officers unless the officer has permission from the retailer, exigent circumstances or a warrant.
- All law enforcement officers should be allowed to enter and remain in alcohol outlets to the same extent allowed to patrons in order to increase their presence and enforce statutory law – not ABC rules.

- Allowing all law enforcement officers entry is necessary to ensure that outlets are not selling to underage or intoxicated persons.

16. To prevent non-compliant permit holders from continuing irresponsible alcohol service practices by switching their alcohol permits to another name, the ABC Commission should not issue or renew a permit to a non-compliant alcohol outlet's physical location for a set period of time.

- Currently, non-compliant retailers are avoiding taking the necessary steps to address negligent or illegal business practices by registering their business in another person's name, such as a family member or a friend, while retaining control of the business.
- To close this loophole, the ABC should tie its sanctions to the physical location of the non-compliant alcohol outlet and not to a name. This would prevent the individual from subverting ABC sanctions.
- There should be a set period of time after the violation of ABC rules for the person requesting a new permit to prove that they do not have any relationship, familial or business, with the previous permit holders of that establishment.

17. Implement the nationwide Drivers License Agreement in North Carolina to prevent drivers from changing their driving record by moving out of the state.

- North Carolina is a member of the Drivers License Compact and the Non-Resident Violator Compact. These two compacts date to the 1960s and have been updated by the American Association of Motor Vehicle Administrators (AAMVA) into one document called the Drivers License Agreement. North Carolina should adopt the updated standards.
- The new Drivers License Agreement allows exchange of information to prevent impaired drivers from obtaining out-of-state licenses to erase their driving records of DWI offenses by moving from state to state.

Arrest/Pretrial

These solutions specifically address the DWI arrest and all activities leading up to adjudication.

18. All law enforcement checkpoints should be required to have standardized criteria.
(See Appendix D)

- The procedure for checkpoints is not standardized. The law currently provides for an “Impaired Driving Check” and other checkpoints that are constitutional, including a drivers license check. The criteria for impaired driving checkpoints includes a written plan and signs.
- The criteria for the drivers license checks are not established by statute but by case law.
- Defense attorneys try to argue in court that a person cannot be arrested for a DWI at a checkpoint that does not meet the criteria of an impaired driving check. Because of the confusion as to when impaired driving check procedures are required, all law enforcement checkpoints should have the same criteria.
- This change will assure proper use of checkpoints and reduced litigation in court.

19. A magistrate checklist should be created for DWI probable cause and pre-trial release hearings.

- Magistrates are given little training on recognition of impaired drivers and sometimes do not recognize acknowledged indicators of mental and/or physical impairment from alcohol. As such, a checklist should be developed to ensure that all magistrates follow the same procedures in processing DWI offenders.
- For example, many magistrates currently interpret the law to say that there is no probable cause for impairment if the Intoxilyzer result is less than 0.08. However, studies consistently show that mental and/or physical impairment begins at BAC levels below 0.05.
- Clarify the magistrate’s obligations when an impaired driver’s BAC is less than 0.08.
- AOC should develop a check list for all magistrates to use when determining probable cause and conditions of pretrial release for DWI.

20. The DMV should administratively revoke the licenses of all drivers at fault for an alcohol-related crash.

- Any driver who has consumed a substantial amount of alcohol and is at fault in a reportable crash (death, personal injury or \$1000 total property damage, or any damage and vehicle is subject to DWI seizure, G.S. 20-4.01(33b)), has demonstrated conduct that warrants restricting the drivers ability to drink and drive.
- Any driver who is at fault in a crash and who has a BAC of 0.08 or more (0.04 or more in a commercial motor vehicle (CMV), or 0.01 or more if under age 21) or refuses the chemical analysis should have his or her drivers license administratively revoked by the DMV.
 - The revocation would be automatic through DMV and not contingent upon a conviction for DWI.
 - The investigation officer should send a crash report (DMV 349) and the chemical analyst affidavit to DMV. The same procedure that DMV uses when a person refuses the implied consent test should be employed to take the drivers license for at least one year.

21. A specific procedure should be developed to prevent dismissals related to delays in processing and by the defendant's lack of access to witnesses.
(See Appendix E)

- Currently, DWI cases are processed before a magistrate and in the jail just as all other cases where a person is arrested.
- However, *State v. Knoll* (1988) says that, under the Constitution, DWI cases are different and must be dismissed if the defendant is prevented from presenting himself or herself to witnesses prior to the dissipation of the alcohol from the body. The reasoning is that the defendant is prevented from obtaining exculpatory evidence that he or she is not impaired despite the findings of the officer. Some judges have interpreted this to mean that, since alcohol dissipates from the body quickly, a substantial delay in processing a person charged with DWI justifies a dismissal. No other criminal charge is subject to this rule.
- A pretrial procedure should be established for a DWI charge in order to allow defendants to obtain their witnesses in a reasonable amount of time and to avoid a dismissal under *Knoll*.
- Magistrates will be responsible for (1) ensuring that probable cause is proven, (2) setting the conditions of pretrial release, (3) explaining to the driver his or her right to contact an attorney, family members and how to be released and (4) determining if

there are witnesses. The jailer of the defendant will be responsible for allowing family and friends to observe the defendant if and until they are released on bond.

22. The State Bureau of Investigation (SBI) should receive additional resources for technological improvements to laboratories to improve the SBI's capabilities to quickly and effectively process BAC chemical analyses and drug tests.

- Limited manpower and backlogs result in extreme delays, sometimes up to a year, for the SBI to return results for blood alcohol levels and blood drug tests. SBI Director Robin Pendergraft said the results of testing could be available sooner if the SBI was adequately staffed.
- Time is essential in prosecuting a DWI and delays increase the likelihood that a case will be dismissed. The SBI should be properly funded in order to provide timely, effective results.
- The State should also consider the value of outsourcing chemical analysis to independent, licensed analysts. That could decrease the backlog of cases waiting for chemical analyses.

Adjudication

These solutions specifically address the adjudication process of the DWI system.

23. The testimony of a Drug Recognition Expert (DRE) and the findings of a Horizontal Gaze Nystagmus (HGN) test should be admitted in trial for purposes of proving probable cause. A crash “reconstructionist” should be allowed to give an opinion of the speed of a vehicle based upon the evidence.
(See Appendix F)

- The DRE program was started in California after it became clear that many arrested drivers with BACs below 0.08 were impaired by something other than alcohol.
- DRE provides highly technical training to law enforcement officers for recognition of the signs of impairment other than alcohol, including behavior, eye movement and other physical indicators, and performance on standard field sobriety tests (SFST).

Allowing DRE expert testimony would enhance accurate assessment of DWI offenders, especially those impaired by a substance other than alcohol.

- Studies have shown that the HGN is among the most effective sobriety tests that are administered by officers. By observing the involuntary movement of a person's eyes, a trained officer can recognize impairment with high certainty. Such evidence also would enhance accurate assessment of DWI offenders. Because of *State v. Helms* (1998), most judges will not admit this testimony. The General Assembly should change this rule of law.
- Most states allow crash "reconstructionists" to give an opinion of speed at time of impact based upon their investigation. The physics of a crash and the mathematical formulas are generally accepted in the scientific community as valid methods to prove speed. Because of Supreme Court cases (see *Shaw v. Sylvester* (1960)) that were decided prior to the current rules of evidence, the lower courts are prohibited from allowing such testimony. The General Assembly should change this rule of law.

24. The results of a breath alcohol-screening device, such as the Alco-sensor, should be admitted at trial.
(See Appendix G)

- The results of an Alco-sensor or similar alcohol-screening devices currently are available at trial only to prove probable cause if the defendant contends that there is insufficient justification to arrest him or her, or for those offenses that prohibit driving after drinking any amount. For example, persons under 21 are prohibited from having any alcohol in their system while driving and the alcohol screening devices are admissible to prove that the drivers had alcohol in their systems. The results of alcohol-screening devices are not admissible to prove a particular alcohol concentration and are excluded from those trials.
- Breath alcohol-screening devices should be admitted in all trials to establish probable cause and support Intoxilyzer test results. It also provides another method of proving alcohol consumption beyond the testimony of the arresting officer if the Intoxilyzer test is suppressed or the driver refuses the test. The alcohol-screening device cannot be used to prove a particular alcohol concentration. The results of an Intoxilyzer test will be required.

25. Clarify the BAC limit law so that a chemical analysis result of 0.08 is sufficient to find a person guilty of DWI. (See Appendix H)

- Currently, the State can prove a driver is guilty of DWI by demonstrating that the person was appreciably impaired or that chemical analysis showed that the person had an alcohol concentration of at least 0.08.
- Some judges do not accept an Intoxilyzer reading of 0.08 as sufficient evidence that the driver meets the 0.08 standard but want evidence of impairment to corroborate the

Intoxilyzer reading. As such, some drivers who register 0.08 by a chemical analysis are not being convicted.

- The law should be changed to read that the State need only prove that the “chemical analysis” was 0.08 instead of that the “alcohol concentration” was 0.08 to prove the per se theory of 0.08.
- A similar language change should be made for a driver having a 0.04 BAC in a CMV.

26. District Court trial procedure should be formalized for DWI and related offenses.
(See Appendix E)

- Currently in Superior Court, motions to suppress are accompanied by an affidavit and are required before the trial. There is no such law in District Court, which is where the majority of DWI cases are tried. Also, the State is not allowed to appeal orders of suppressions to the Superior Court.
- Defense attorneys are allowed to argue to any motion without prior notice to the District Attorney (DA), and the DA does not have an opportunity to prepare a response to the motion as allowed in Superior Court.
- Many DWI cases are resolved when the court rules on these motions to dismiss or suppress.
- The proceedings of District Court should be modified to require:
 - a. Motions to suppress and dismiss evidence (such as Intoxilyzer results) must be made in writing and filed seven days prior to the trial.
 - b. There are no statutes defining when evidence can be suppressed or dismissed in District Court as there is in Superior Court. District Court procedure should be modeled to more closely resemble Superior Court.
 - c. District Court judges make written findings of fact and conclusions of law when evidence is suppressed or cases are dismissed.
 - d. The State is allowed to appeal District Court orders dismissing a case or suppressing evidence to Superior Court.

27. Increase punishment for DWI fatality and create a specific law for DWI injury.
(See Appendix I)

- Currently, felony death by motor vehicle applies to anyone who drives while impaired and kills someone. It is a Class G felony for punishment purposes and carries a likely sentence of 10-13 months in jail for a first time offender. However, a person who drives while impaired and injures someone can be charged with assault with a deadly weapon – a Class E felony that carries more jail time than the punishment for killing someone.

- The inconsistency of these laws makes for inconsistent application. The laws need to be modified to more appropriately fit the severity of the charges.
 - a. The punishment for felony death by motor vehicle should be increased from Class G to Class D.
 - b. Separate offenses for DWI injury and DWI fatality should be created. There currently are no specific charges with sufficient punishment for killing someone while driving drunk other than second-degree murder. First-time DWI felons can be charged with felony death by vehicle, which carries a punishment of 10-13 months jail time.

28. Impaired driving offenses should be clarified in order to reduce technical objections that do not relate to guilt or innocence.
(See Appendix J)

- Currently, impaired driving statutes are highly technical and were written at different times, creating opportunities for technical objections that do not relate to guilt or innocence.
 - a. The definition of public vehicular area should be clarified to include any area where vehicles are likely to be driven.
 - b. Consumption and driving with illegal Schedule I and II controlled substances in a person's system should be prohibited. Schedule I and II substances include heroin, LSD, opium and cocaine.
 - c. The prohibition against charging DWI on a horse, bicycle or lawnmower should be deleted.
 - d. Proving a vehicle is a CMV usually requires proof of the gross vehicle weight rating, which is difficult under current law. Specifying the evidence that can be used to prove the gross vehicle weight rating will simplify this issue.

29. The punishment for underage drinking and driving should be modified to require community service and an assessment and treatment or education as recommended.
(See Appendix J)

- Currently, there is no mandatory punishment for persons under 21 who are arrested for drinking and driving. Therefore, they can request a "prayer for judgement continued" (PJC). The PJC allows those persons to escape conviction and treatment in exchange for a relatively minor community service requirement. Underage drinking drivers should receive appropriate treatment while they're young to prevent the incident from becoming a chronic problem.
- The current PJC practice should be eliminated for underage drinking and driving. To avoid having a conviction on his or her record, the young offender should be required to perform community service, subjected to a period of license revocation without a LDP, and undergo assessment and treatment.

30. Implied Consent Law should be clarified and simplified.

(See Appendix K)

- Implied Consent offenses are any offenses like DWI where driving on public roads “implies” that the driver will “consent” to an Intoxilyzer test if a law enforcement officer has reasonable grounds to believe that the person has committed the offense.
- Implied Consent Law has not been changed in 40 years and it is in need of adjustment. The majority of the changes are very technical, involve updating statutory language and a review of the Appendix is necessary to understand them. They cannot be adequately summarized in the report. A few of the areas are listed below.
 - a. Implied consent rights need to be clarified.
 - b. Either the arresting officer or the chemical analyst should be allowed to request a chemical analysis or test.
 - c. The right of a driver to request a pre-arrest breath test should be deleted.
 - d. The defendant’s appeal to the Superior Court because of a DMV revocation for a refusal to take a chemical analysis test should be allowed to be on the record, instead of requiring a new trial.

31. Admissibility protocol of chemical analyses should be clarified and simplified.

(See Appendix L)

- **Many of the rights for admissibility of chemical analyses in court have been determined by case law, which sometimes is too specific to apply to other cases and can invite technical objections. This needs to be clarified to simplify the adjudication process.**
 - a. **Allow pre-approved access of the defendant’s witnesses and attorney to the Intoxilyzer room and posting of Intoxilyzer rights forms. (Appendix E)**
 - b. **The results of chemical analysis should be sufficient to prove alcohol concentration.**
 - c. **Specify the requirements for results of breath tests to be admissible.**
 - d. **Courts should be required to take judicial notice of who has chemical analysis permits.**
 - e. **The responsibility for admissibility protocol of chemical analyses should be transferred from the Commission of Health Services to the Department of Health and Human Services (DHHS).**
 - f. **Since all breath testing instruments are now “automated,” delete the requirement that the State prove that the chemical analysis was performed by an “automated” instrument before any law enforcement officer who is a chemical analyst is permitted to run a breath test.**

- g. Courts should take judicial notice of DHHS preventive maintenance records.
- h. All Intoxilyzer test results should be admitted but only the lower of two consecutive test results within 0.02 can be used to prove 0.08.
- i. DHHS should be required to post on the Internet and file with the Clerk of Superior Court a list of who has a chemical analyst permit as well as preventive maintenance records. Preventive maintenance records are needed to prove that the Intoxilyzer was working correctly. Public access to the records should prevent technical objections that sometimes result in dismissals.
- j. Clarify authority of doctors, nurses and Emergency Medical Technicians (EMT) to draw blood or urine at the request of a law enforcement officer with an authorized search warrant. Nurses and EMTs do not require the permission of a doctor to draw blood or urine.
- k. The SBI should be allowed to report results electronically using the same kind of report currently used to report analysis of drugs.
- l. Chain of custody should be allowed to be proven by report just as in drug cases. Otherwise, attorneys may subpoena everyone involved with withdrawal, transport and analysis of the blood. Currently, results could be dismissed if one of those persons does not show up for the trial.
- m. Requirements to admit blood test results should be simplified. Currently, the process requires that (1) implied consent rights are read to the person; (2) a qualified person draws the blood; (3) the blood is preserved unaltered, and (4) the blood is analyzed by a person possessing a valid permit.
- n. The procedures for a defendant to obtain a copy of breath test results if not provided one on the night of the test should be clarified.
- o. Clarify that the defendant cannot subpoena the chemical analyst when there is an affidavit unless he or she convinces the judge there is some legitimate reason.
- p. Specify that a violation of the Chapter 20 or Chapter 15A does not allow for suppression of the results unless the violation is willful and it resulted in violation of Constitutional rights. Chapter 20 is the Motor Vehicle Code and Chapter 15A is the Criminal Procedure Act.

32. Accessibility to medical records in impaired driving cases should be improved.
(See Appendix M)

- New federal regulations under the Health Insurance Portability and Accountability Act (HIPAA) of 1996 are not reflected in current law. The current law to obtain medical records requires a hearing before a District Court judge, an order from the judge, and execution of the order by the hospital. This process needs to be simplified in order to mesh with HIPAA.
- a. Health care personnel should be required to report impaired driving crashes if the officer requests that information.

- b. State law requirements for obtaining medical records should be made consistent with HIPAA. Currently, there is no specific procedure for obtaining medical records in North Carolina law. A procedure that is in compliance with HIPAA can be found in the Appendix.

33. Expand the reporting requirements of prosecutors when implied consent cases are dismissed.

(See Appendix N)

- Approximately 20 percent of all DWI related offenses are voluntarily dismissed by the prosecutor and the dismissal forms are put in a court file.
 - a. Require that the prosecutor file written dismissal forms for DWI related offenses and driving while license revoked (DWLR) for impaired driving offenses.
 - b. Expand the explanation required for dismissal.
 - c. Require a copy of the form to be read in open court and sent to the elected DA and to the law enforcement agency involved
 - d. The written dismissal form should be included in the integrated data system to be created.

34. Judicial education on highway safety issues including specialized DWI training should be made available to all judicial officials.

- DWI cases are some of the most complicated cases that a judge will face during their tenure and currently there is no law requiring that a judge be familiar with DWI laws or issues relating to alcohol impairment or substance abuse treatment.
- “Specialized” DWI training should be made available to District Court judges through contracts with educational partners, including the School of Government at the University of North Carolina and the National Judicial College.

35. Establish separate offenses for DWLR and failure to appear for offenses involving impaired driving.

(See Appendix O)

- Under current law, the failure to appear for all motor vehicle law charges from improper equipment to DWI carry the same punishment and drivers license revocation. The same is true for a person convicted of DWLR for any motor vehicle law offense. In order to avoid the criminal sanctions, treatment requirements and licensing restrictions, some offenders will not appear in court and take their chances of not being caught again. A driver who fails to appear for DWI or drives after a license revocation for DWI needs to be required to comply with treatment and licensing sanctions that would have been imposed had the driver appeared in court on the DWI charge.

- Currently, a driver who fails to appear for a DWI case and is later apprehended may be able to avoid a conviction for DWI because the officer is no longer employed. It is not uncommon for DWI cases that are 10-to-20 years old to be brought to court, and those involved often are no longer available.
- Also, one of the issues that arise in many DWLR cases is whether the driver was provided adequate information and knew that his license was revoked. This issue needs to be clarified.
 - a. The DMV should clarify its notifications of revocation so that the offenders understand what is required of them.
 - b. Create new crimes for driving after notification that the drivers license was revoked for an impaired driving revocation, and failure to appear on an implied consent offense. A conviction of either new offense should result in revocation of the offender's drivers license.
 - c. Early restoration of a drivers license for an impaired driving revocation requires that the driver obtain an assessment, education or treatment and install an ignition interlock when otherwise required by law.

**36. The current DWI punishment statute (G.S. 20-179) should be modified in order to clarify legislative intent and to comply with *Blakely v. Washington*.
(See Appendix P)**

- *Blakely v. Washington* (2004) requires that all sentencing factors that raise the level of punishment, except for prior convictions, are to be determined by the finder of fact. A judge cannot impose a more serious punishment on a convicted person than the facts dictate that were presented and proven to the jury. The effect of this ruling is currently unclear on District Courts as the ruling involved a case where the defendant had a Sixth Amendment right to a trial by jury.
 - a. The Task Force recommends that District Court procedure be left as is, but that the Superior Court procedure should be changed so that all grossly aggravating and aggravating circumstances, except for prior convictions, should be submitted and proven to the jury. In that way, Superior Court would comply with the ruling of *Blakely v. Washington*.
 - b. The Clerk of Superior Court should be required to maintain paper court records for prior DWI convictions for at least 10 years.
 - c. A new sentencing hearing should be provided upon remand from the Superior Court and authorized if there are any convictions occurring after the appeal process has began for a defendant. A new sentence should be allowed. Currently, offenders are able to plead guilty to a second DWI offense while another offense is being appealed with the Superior Court. The result is that the defendant receives two Level V punishments – which is the minimum punishment – instead of receiving a Level II punishment for the second offense.

- d. The optional punishment of “non-operation” should be deleted. Offenders are avoiding jail time or community service by receiving a period of “non-operation” where a LDP is not effective and they are not entitled to a LDP.
- e. For jail time served on the weekend, the sentence of 48 hours or more must be 48 continuous hours. An offender must serve hour for hour and must not have been drinking when reporting to jail. If the offender violates this condition of weekend jail, the offender will not be allowed to serve time on the weekend.

37. The seven-year restriction on use of prior convictions as a grossly aggravating factor should be increased to a 10-year restriction on prior convictions for DWI and habitual DWI.

(See Appendix P)

- Multiple arrests for a DWI over a 10-year period indicate a chronic pattern of drinking and driving that should be properly prosecuted. Seven years is an inadequate period of time by which to consider prior convictions.
- Multiple offenses in a 10-year period are evidence of a problem that needs to be addressed as a grossly aggravating factor in court.

38. The collection of fines and fees from DWI offenders for the Administrative Office of the Courts (AOC) should be increased and clarified.

(See Appendix Q)

- The following is recommended to increase the efficiency of collection of fees and maintain records of fees and fines paid to AOC:
 - a. The court ordered waiver of payment of any fee or fine, without specific findings by the trial judge that the driver is incapable of paying, should be prohibited.
 - b. The Clerk of Court should establish an accounts receivable file of all fees and fines owed to AOC within 48 hours of any court order. In addition, AOC should give an annual report to the General Assembly on fines imposed by the courts, fines reduced by the courts, and fines still owed.
 - c. An additional fee should be created for those offenders who refuse to surrender their drivers license or registration tag.

39. All DWI-related statutes should be moved into one article for the purposes of clarifying the law.

- DWI law is dispersed through Chapter 20 of the General Statutes. To make it easier to locate the law as it pertains to individual cases, the laws should be placed into one article.

40. Counties with identified backlogs in DWI cases should be allowed the creation of a DWI Court specifically designed to deal with DWI cases.

- The DWI Court in Wake County, funded by GHSP, has already exceeded its goals. It has succeeded in getting convictions for two-thirds of the cases it has tried and trimmed a significant portion of the backlog of DWI cases from Wake County.
- A similar court, based on the model utilized in Wake County to maximum effectiveness, should be allowed and implemented in counties with identified backlogs of DWI cases. (This recommendation is also included as part of Recommendation no. 6, DWI oversight committee.)

41. Case continuances in court should be documented for the purposes of identifying the problem imposed by excessive court continuances.

- Currently, some DWI defendants are receiving an excessive number of continuances without proper documentation.
- Excessive case continuances are one way to avoid a conviction of DWI. Testifying officers might not be able to appear in court after multiple continuances, thereby increasing the likelihood of dismissal of the charges.
- Courts handle the issue of continuances in different ways. A standard method of documenting continuances should be required by AOC. (This recommendation is also included in Recommendation no. 2, Integrated Data System and Recommendation no. 6, DWI Oversight Committee.)

42. A motion for appropriate relief (MAR) should not be allowed in District Court without the signature of the DA.

- The MAR is a post-conviction motion that allows the court to change its judgement. MARs can be used to review whether a defendant is guilty and the level of punishment is appropriate, and to change the outcome if appropriate.
- The MAR is used to establish that the defendant's trial was mishandled by their trial lawyer and that appropriate amendments should be made.
- The District Attorney's signature showing the State has an opportunity to object to changing a conviction should be required.

43. Expunction of a defendant's criminal record should not be allowed in District Court without the signature of the DA.

- Expunction is a process available to people charged with crimes that have been dismissed, or who have been found not guilty of a crime. It allows for all mention of the charges or investigation against the person to be erased from the record.

- An expunction should require a District Attorney's signature to ensure that he or she receives adequate advance notice.

44. Consumption of alcohol by persons under 21 should be illegal and law enforcement officers should be allowed to use alcohol-screening devices in order to prove the person has consumed alcohol.

(See Appendix R)

- Currently, it is illegal for persons under 21 to "possess" alcohol, but there is no statute saying it is illegal for them to "consume" alcohol.
- Any law enforcement officer who has probable cause to believe that an underage person has consumed alcohol may require them to submit to an alcohol-screening device approved by DHHS. The results of the test should be admissible in a court or administrative hearing to prove that a person possessed or consumed an alcoholic beverage.

Compliance with Sanctions

These solutions apply to the administration of all activities involved in ensuring that the offender complies with the sanctions and treatment assigned to the offender.

45. DWI Coordinators should be created within each judicial district for offenders placed upon unsupervised probation.

- Currently, unsupervised probation lacks the attributes necessary to track offenders and ensure that they are complying with their sanctions. It is not enough to just extend the revocation of a person's drivers license and revocation of a limited driving privilege.
- Statistics show that approximately 46,000 offenders are assessed and ordered to education or treatment but only 22,000 successfully complete either.
- In most counties when a DWI offender is ordered to serve jail time on weekends, the jail is overcrowded and the offender may be turned away. There is no coordination between the sentencing of offenders and the availability of jail space.
- Unless an offender has an attorney, there is no one person to explain the procedures for complying with court ordered sanctions.

- Statistics show that the completion of community service hours and payment of community service fees by offenders under the Community Service Work Program is very successful. This model consists of meeting with the offender, monitoring compliance and contacting the offender who does not comply and ultimately referring back to court if the offender does not follow through. This monitoring should increase compliance with all sanctions.
- There are approximately 8,000 DWI offenders who are punished at the lower Levels, III, IV & V but nevertheless are placed on supervised probation and assigned to a probation officer. This level of supervision will not normally be necessary to obtain compliance with education, treatment, community service, up to 72 hours in jail or the other sanctions imposed on first time offenders.
- Supervised probation costs the offender \$30 per month and is expensive to the State. A DWI Coordinator should reduce the number of Levels III, IV & V offenders assigned to supervised probation.
- Studies show that an offender who successfully completes education or treatment is less likely to commit the offense again. Monitoring compliance with education or treatment should increase compliance and reduce recidivism.
- It is known that many offenders do not fully understand the duties and responsibilities that relate to their convictions. A DWI Coordinator would be responsible for explaining the conditions of the court order and thereby facilitating compliance.
- The duties of the DWI Coordinator would include monitoring all conditions of probation imposed upon impaired drivers including jail, assessment, treatment and education, community service, payment of fines, fees and costs, explaining procedures for obtaining a LDP and ignition interlock and surrender of drivers license and license plate. If the offender does not comply, the coordinator reports the offender back to court.
- The DWI Coordinator would be based in the same section that currently provides the Community Service Coordinator functions under the Department of Correction and, where appropriate, the Community Service Coordinator will be the DWI Coordinator. The DWI Coordinator would only monitor compliance and there is no need to have that function performed by a sworn Probation/Parole officer or a law enforcement officer.
- The Task Force requests that the General Assembly determine if existing community services fees and anticipated increased collection of fines, fees and costs will be sufficient to fund the additional resources needed for this recommendation.

46. Community service, parole or house arrest should be required for DWI offenders who are released from prison early.
(See Appendix S)

- DWI offenders who are released from prison early should not be without supervision. With recidivism so high among DWI offenders, it is important that offenders who are released from prison early get the treatment and supervision that they need to prevent future offenses.

47. All DWI offenders on supervised probation should be (1) required to submit to chemical analyses at the request of their probation officer and (2) prohibited from using or possessing illegal or controlled substances.

- Many DWI offenders who are placed upon supervised probation are not required as a condition of probation to submit to chemical analyses at the request of the probation officer or not to use or possess illegal or controlled substances.
- Currently, Special Conditions of probation Nos. 15 (“submit to any physical, chemical, blood or breath test or to a urinalysis for the detection of alcohol or controlled substance”) and 16 (“not use, possess, or control any illegal or controlled substance”) are not mandatory for DWI offenders, but are imposed at the discretion of the court.
- All DWI offenders who have been placed on supervised probation should be subject to Special Conditions Nos. 15 and 16.

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Appendix A

LIMITED DRIVING PRIVILEGES TO DMV

§ 20-11.1. Limited driving privilege

(a) Definition of Limited Driving Privilege. -- A limited driving privilege is a permit issued in the discretion of the Division for good cause shown authorizing a person with a revoked driver's license to drive a Class C non-commercial motor vehicle for essential purposes related to any of the following:

- (1) His employment.
- (2) The maintenance of his household.
- (3) His education.
- (4) His court-ordered treatment or assessment.
- (5) Community service ordered as a condition of the person's probation.
- (6) Emergency medical care.

(b) Eligibility. – The following persons who held a valid drivers license or a license that had been expired for less than one year at the time of the offense for which the person is revoked shall be eligible for a limited driving privilege:

- (1) A person revoked pursuant to G.S. 20-17(a) and:
 - a. At the time of the offense he had not within the preceding ~~seven~~ 10 years **[Recommendation 9- 37Adjudication change 7 to 10 years]** been convicted of an offense involving impaired driving;
 - b. Punishment Level Three, Four, or Five was imposed for the offense of impaired driving;
 - c. Subsequent to the offense he has not been convicted of, or had an unresolved charge lodged against him for, an offense involving impaired driving;
 - e. The person has obtained and filed with the court a substance abuse assessment of the type required by G.S. 20-17.6 for the restoration of a drivers license **and is participating in participation in any recommended training or treatment program;** and
 - f. The person is not revoked for any other reason;

(2) A person whose North Carolina driver's license is revoked because of a conviction in another jurisdiction substantially similar to impaired driving under G.S. 20-138.1 is eligible for a limited driving privilege if he would be eligible for it had the conviction occurred in North Carolina.

(3) Any person whose licensing privileges are forfeited pursuant to G.S. 15A-1331A is eligible for a limited driving privilege if the Division finds that at the time of the forfeiture, the person held either a valid drivers license or a drivers license that had been expired for less than one year and

a. The person is supporting existing dependents or must have a drivers license to be gainfully employed; or

b. The person has an existing dependent who requires serious medical treatment and the defendant is the only person able to provide transportation to the dependent to the health care facility where the dependent can receive the needed medical treatment.

The limited driving privilege granted under this subdivision must restrict the person to essential driving related to the purposes listed above, and any driving that is not related to those purposes is unlawful even though done at times and upon routes that may be authorized by the privilege.

(4) A first conviction of violating G.S. 20-16.1;

(5) A first revocation pursuant to G.S. 20-13.2(a) if on the date of the offense the person was age 18, 19, or 20.

(6) A revocation pursuant to G.S. 20-16.5 if:

a. Does not have an unresolved pending charge involving impaired driving except the charge for which the license is currently revoked under this section or additional convictions of an offense involving impaired driving since being charged for the violation for which the license is currently revoked under this section;

b. The person's license has been revoked for at least 10 days and

c. The person has obtained a substance abuse assessment from a mental health facility and registers for and is participating in any recommended training or treatment program;

d. The person has installed an ignition interlock in all vehicles registered or used by the person as provided in G.S. 20-16.6. **[Recommendation #6, 7 Integrate Solutions]**

(7) A revocation pursuant to G.S. 20-16.2 if:

a. At the time of the refusal, the person had not within the preceding ~~seven~~ 10 years **[Recommendation 9 37 Adjudication change 7 to 10 years]** been convicted of an offense involving impaired driving;

b. At the time of the refusal, the person had not in the preceding ~~seven~~ 10 years **[Recommendation 9 37 Adjudication change 7 to 10 years]** willfully refused to submit to a chemical analysis under this section;

c. The implied-consent offense charged did not involve death or critical injury to another person;

d. The underlying charge for which the defendant was requested to submit to a chemical analysis has been finally disposed of:

i. Other than by conviction; or

ii. By a conviction of impaired driving under G.S. 20-138.1, at a punishment level authorizing issuance of a limited driving privilege under G.S. 20-179.3(b), and the defendant has complied with at least one of the mandatory conditions of probation listed for the punishment level under which the defendant was sentenced;

e. Subsequent to the refusal the person has had no unresolved pending charges for or additional convictions of an offense involving impaired driving;

f. The person's license has been revoked for at least six months for the refusal;

(8) a revocation pursuant to G.S. 20-16(a)(9), (10) or (10a).

(9) a revocation pursuant to G.S. 20-17(a)(12) for a second conviction of 20-138.7(a)

(10) a revocation for a conviction of speeding to elude arrest pursuant to G.S. 20-141.5;

(11) a revocation for felony leaving the scene of a crash in violation of G.S. 20-166.

(12) a revocation based upon failure to pay child support pursuant to G.S. 110-142.2

(13) a first revocation for having a crash after drinking pursuant to G.S. 20-17(c).

[New]

~~(c) Privilege Not Effective until after Compliance with Court-Ordered Revocation. -- A person convicted of an impaired driving offense may apply for a limited driving privilege at the time the judgment is entered. If the judgment does not require the person to complete a period of nonoperation pursuant to G.S. 20-179, the privilege may be issued at the time the judgment is issued. If the judgment requires the person to complete a period of nonoperation pursuant to G.S. 20-179, the limited driving privilege may not be effective until the person successfully completes that period of nonoperation. A person whose license is revoked because of a conviction in another jurisdiction substantially similar to impaired driving under G.S. 20-138.1 may apply for a limited driving privilege only after having completed at least 60 days of a court-imposed term of nonoperation of a motor vehicle, if the court in the other jurisdiction imposed such a term of nonoperation. [Recommendation 15 36 Adjudication]~~

(d) Application for and Scheduling of Subsequent Hearing. -- The application for a limited driving privilege made at any time after the day of sentencing on the offense for which the revocation is based or for a pretrial civil revocation at anytime after the expiration of the mandatory minimum revocation period.

(e) Limited Basis for and Effect of Privilege. -- A limited driving privilege issued under this section authorizes a person to drive if his license is revoked solely for the revocation specified

in the application. If the person's license is revoked under any other statute, the limited driving privilege is invalid.

(f) Overall Provisions on Use of Privilege. -- Every limited driving privilege must restrict the applicant to essential driving related to the purposes listed in subsection (a), and any driving that is not related to those purposes is unlawful even though done at times and upon routes that may be authorized by the privilege. If the privilege is granted, driving related to emergency medical care is authorized at any time and without restriction as to routes, but all other driving must be for a purpose and done within the restrictions specified in the privilege.

(f1) Definition of "Standard Working Hours". -- Under this section, "standard working hours" are 6:00 A.M. to 8:00 P.M. on Monday through Friday.

(g) Driving for Work-Related Purposes in Standard Working Hours. -- In a limited driving privilege, the court may authorize driving for work-related purposes during standard working hours without specifying the times and routes in which the driving must occur. If the applicant is not required to drive for essential work-related purposes except during standard working hours, the limited driving privilege must prohibit driving during nonstandard working hours unless the driving is for emergency medical care or is authorized by subsection (g2). The limited driving privilege must state the name and address of the applicant's place of work or employer, and may include other information and restrictions applicable to work-related driving in the discretion of the court.

(g1) Driving for Work-Related Purposes in Nonstandard Hours. -- If the applicant is required to drive during nonstandard working hours for an essential work-related purpose, he must present documentation of that fact before the Division may authorize him to drive for this purpose during those hours. If the applicant is self-employed, the documentation must be attached to or made a part of the limited driving privilege. If the Division determines that it is necessary for the applicant to drive during nonstandard hours for a work-related purpose, he may authorize the applicant to drive subject to these limitations:

(1) If the applicant is required to drive to and from a specific place of work at regular times, the limited driving privilege must specify the general times and routes in which the applicant will be driving to and from work, and restrict driving to those times and routes.

(2) If the applicant is required to drive to and from work at a specific place, but is unable to specify the times at which that driving will occur, the limited driving privilege must specify the general routes in which the applicant will be driving to and from work, and restrict the driving to those general routes.

(3) If the applicant is required to drive to and from work at regular times but is unable to specify the places at which work is to be performed, the limited driving privilege must specify the general times and geographic boundaries in which the applicant will be driving, and restrict driving to those times and within those boundaries.

(4) If the applicant can specify neither the times nor places in which he will be driving to and from work, or if he is required to drive during these nonstandard working hours as a condition of employment, the limited driving privilege must specify the geographic boundaries in which he will drive and restrict driving to that within those boundaries.

The limited driving privilege must state the name and address of the applicant's place of work or employer, and may include other information and restrictions applicable to work-related driving, in the discretion of the court.

(g2) Driving for Other than Work-Related Purposes. -- A limited driving privilege may not allow driving for maintenance of the household except during standard working hours, and the limited driving privilege may contain any additional restrictions on that driving, in the discretion of the court. The limited driving privilege must authorize driving essential to the completion of any community work assignments, course of instruction at an Alcohol and Drug Education Traffic School, or substance abuse assessment or treatment, to which the applicant is ordered by the court as a condition of probation for the impaired driving conviction. If this driving will occur during nonstandard working hours, the limited driving privilege must specify the same limitations required by subsection (g1) for work-related driving during those hours, and it must include or have attached to it the name and address of the Alcohol and Drug Education Traffic School, the community service coordinator, or mental health treatment facility to which the applicant is assigned. Driving for educational purposes other than the course of instruction at an Alcohol and Drug Education Traffic School is subject to the same limitations applicable to work related driving under subsections (g) and (g1).

(g3) Ignition Interlock Allowed. – The Division may include all of the following in a limited driving privilege order:

(1) A restriction that the applicant may operate only a designated motor vehicle.

(2) A requirement that the designated motor vehicle be equipped with a functioning ignition interlock system of a type approved by the Commissioner. The Commissioner shall not unreasonably withhold approval of an ignition interlock system and shall consult with the Division of Purchase and Contract in the Department of Administration to ensure that potential vendors are not discriminated against.

(3) A requirement that the applicant personally activate the ignition interlock system before driving the motor vehicle.

(g4) The restrictions set forth in subsection (g3) and (g5) of this section do not apply to a motor vehicle that meets all of the following requirements:

(1) Is owned by the applicant's employer.

(2) Is operated by the applicant solely for work-related purposes.

(3) Its owner has filed with the court a written document authorizing the applicant to drive the vehicle, for work-related purposes, under the authority of a limited driving privilege.

(g5) Ignition Interlock Required. -- If a person's drivers license is revoked for a conviction of G.S. 20-138.1 and the person had an alcohol concentration of 0.16 or more **or the license is revoked pursuant to G.S. 20-16.5 and the registration plate is subject to seizure or revocation pursuant to G.S. 20-16.6**, [Recommendation 5 & 6-6 & 7 Integrated Solutions], the Division shall include all of the following in a limited driving privilege order:

(1) A restriction that the applicant may operate only a designated motor vehicle.

(2) A requirement that the designated motor vehicle be equipped with a functioning ignition interlock system of a type approved by the Commissioner, which is set to prohibit driving with an alcohol concentration of greater than 0.00. The Commissioner shall not unreasonably withhold approval of an ignition interlock system and shall consult with the Division of Purchase and Contract in the Department of Administration to ensure that potential vendors are not discriminated against.

(3) A requirement that the applicant personally activate the ignition interlock system before driving the motor vehicle.

(h) Other Mandatory and Permissive Conditions or Restrictions. -- In all limited driving privileges the Division shall also include a restriction that the applicant not consume alcohol while driving or drive at any time while he has remaining in his body any alcohol or controlled substance previously consumed, unless the controlled substance was lawfully obtained and taken in therapeutically appropriate amounts. The Division may impose any other reasonable restrictions or conditions necessary to achieve the purposes of this section.

(i) Modification or Revocation of Privilege. -- The Division is authorized to modify or cancel the limited driving privilege upon a showing that the circumstances have changed sufficiently to justify modification or revocation. The Division shall provide the driver with an opportunity to present reasons why the limited privilege should not be modified or canceled. A limited driving privilege shall be cancelled if the driver fails to maintain liability insurance, is subsequently convicted of a moving violation, or is subsequently charged with an implied consent offense or an offense involving an open container of alcoholic beverage or fails to comply with any conditions involving the ignition interlock, fails to comply with the terms and conditions of probation including failure to perform community service, comply with terms of a jail sentence or fails to pay any monies owed.

(j) Effect of Violation of Restriction. -- A holder of a limited driving privilege who violates any of its restrictions commits the offense of driving while his license is revoked under G.S. 20-28(a) 20-28(a2) [Recommendation 14 35 Adjudication] and is subject to punishment and license revocation as provided in that section. If a law-enforcement officer has reasonable grounds to believe that the holder of a limited driving privilege has consumed alcohol while driving or has driven while he has remaining in his body any alcohol previously consumed,

the suspected offense of driving while license is revoked is an alcohol-related offense subject to the implied-consent provisions of G.S. 20-16.2. If a holder of a limited driving privilege is charged with driving while license revoked by violating a restriction contained in his limited driving privilege, and a judicial official determines that there is probable cause for the charge, the limited driving privilege is suspended pending the resolution of the case, and the judicial official must require the holder to surrender the limited driving privilege. The judicial official must also notify the holder that he is not entitled to drive until his case is resolved and shall forward the limited driving privilege and a copy of the criminal process to the Division.

Notwithstanding any other provision of law, an alcohol screening test may be administered to a driver suspected of violating this section, and the results of an alcohol screening test or the driver's refusal to submit may be used by a law enforcement officer, a court, or an administrative agency in determining if alcohol was present in the driver's body. No alcohol screening tests are valid under this section unless the device used is one approved by the Department of Health and Human Services, and the screening test is conducted in accordance with the applicable regulations of the Department as to the manner of its use.

(k) The Division shall, prior to granting such privileges, be furnished proof and be satisfied that the person being granted such privileges is financially responsible. Proof of financial responsibility shall be in one of the following forms:

(1) A written certificate or electronically-transmitted facsimile thereof from any insurance carrier duly authorized to do business in this State certifying that there is in effect a nonfleet private passenger motor vehicle liability policy for the benefit of the person required to furnish proof of financial responsibility. The certificate or facsimile shall state the effective date and expiration date of the nonfleet private passenger motor vehicle liability policy and shall state the date that the certificate or facsimile is issued. The certificate or facsimile shall remain effective proof of financial responsibility for a period of 30 consecutive days following the date the certificate or facsimile is issued but shall not in and of itself constitute a binder or policy of insurance or

(2) A binder for or policy of nonfleet private passenger motor vehicle liability insurance under which the applicant is insured, provided that the binder or policy states the effective date and expiration date of the nonfleet private passenger motor vehicle liability policy.

The preceding provisions of this subsection do not apply to applicants who do not own currently registered motor vehicles and who do not operate nonfleet private passenger motor vehicles that are owned by other persons and that are not insured under commercial motor vehicle liability insurance policies. In such cases, the applicant shall sign a written certificate to that effect. Such certificate shall be furnished by the Division. Any material misrepresentation made by such person on such certificate shall be grounds for suspension of that person's license for a period of 90 days.

For the purpose of this subsection "nonfleet private passenger motor vehicle" has the definition ascribed to it in Article 40 of General Statute Chapter 58.

The Commissioner may require that certificates required by this subsection be on a form approved by the Commissioner. Such granting of limited driving privileges shall be conditioned upon the maintenance of such financial responsibility during the period of the limited driving privilege. Nothing in this subsection precludes any person from showing proof of financial responsibility in any other manner authorized by Articles 9A and 13 of this Chapter.

STATUTES WHERE LIMITED DRIVING PRIVILEGES ARE MENTIONED AND NEED TO BE MODIFIED

- G.S. 20-16 Discretionary revocations.
- G.S. 20-16.1 Revocation for certain speeding offense
- G.S. 20-16.2 Implied consent – refusal
- G.S. 20-16.5 Thirty day pretrial revocation
- G.S. 20-17.4 Disqualification to operate commercial motor vehicle
- G.S. 20-17.5 Effect of disqualification
- G.S. 20-17.8 Restoration of license after certain DWI convictions, ignition interlock
- G.S. 20-138.3 Driving by person less than 21 after drinking
- G.S. 20-138.7 Transporting open container of alcoholic beverage
- G.S. 20-141.5 Speeding to elude arrest
- G.S. 20-166 Duty to stop in event of an accident
- G.S. 110-142.2 Failure to pay child support

Appendix B

DWI INTEGRATED DATA SYSTEM AND REPORT

§ 7A-109.2. Records of dispositions in criminal cases; Impaired driving integrated data system.

(a) Each clerk of superior court shall ensure that all records of dispositions in criminal cases, including those records filed electronically, contain all the essential information about the case, including the ~~identity~~ the name of the presiding judge and the attorneys representing the State and the defendant.

(b) In addition to the information required by subsection (a), the clerk shall include in the electronic records of all offenses involving impaired driving as defined by G.S. 20-4.01 and all charges of driving while license revoked for an impaired driving license revocation as defined by G.S. 20-28.2 and any other violation of the motor vehicle code involving the operation of a vehicle and the possession, consumption, use or transportation of alcoholic beverages the following information:

1. the reasons for any voluntary dismissal or reduction of charges as specified in G.S. 20-138.4
2. the reasons for any pretiral dismissal by the court;
3. the alcohol concentration reported by the charging officer or chemical analyst, if any;
4. the reasons for any suppression of evidence;
5. the reasons for dismissal of charges at trial;
6. the punishment imposed, including community service, jail, substance abuse assessment and education or treatment, amount of any fine, costs, and fees imposed;
7. the amount and reason for waiving or reduction of any fee or fine;
8. The time or other conditions given to pay any fine, cost or fees; and
9. After the initial disposition, the modification or reduction to any sentence, fee owed, fine or restitution and the name and agency of the person requesting the modification;
10. The date of compliance with court ordered community service, jail sentence, substance abuse assessment, substance abuse education or treatment and payment of fines, costs and fees;
11. Subsequent court proceedings to enforce compliance with punishment, assessment, treatment, education, or payment of fines, costs and fees.

G.S. 7A-346.3 Impaired driving integrated data system report.

The information compiled in G.S. 7A-109 shall be maintained in an Administrative Office of the Courts data base. By March 1, The Administrative Office of the Courts shall provide an annual report of the previous calendar year to the Joint Legislative Commission on Governmental Operation showing types of dispositions for the entire state, by county, by judge, by prosecutor and by defense attorney. This report shall also include the amount of

finances, costs, and fees ordered at the disposition of the charge, the amount of any subsequent reduction, amount collected and amount still owed and compliance with sanctions of community service, jail, substance abuse assessment, treatment and education. The Administrative Office of the Courts shall facilitate public access to the information collected under this section by posting this information on the court's internet page in a manner accessible to the public and shall make reports of any information collected under this section available to the public upon request and without charge.

Appendix C

Make the pretrial civil drivers license revocation [30 day revocation] remain in effect until trial and appeal of all charges (as is required for offenders with more than one charge pending), but require the driver who obtains a LDP to pay the \$50.00 fee under GS 20-16.5(j) at the time he obtains the LDP or upon convictions, which ever occurs first;

Require ignition interlock for persons who have an alcohol concentration of 0.16 or more, refuses to submit to a chemical analysis, have another pending offense or have a prior conviction within the last 10 years. The license tag is seized and a 10 day temporary tag is given to the driver. The registration of the vehicle is revoked if the driver does not install the ignition interlock within the 10 days.

The ignition interlock must remain on the vehicle until the all charges are resolved, the driver has successfully completed the treatment required by the assessment and the driver has not tried to start the car after drinking for a period of four months.

Add new Section, G.S. 20-5A. to read

§ 20-5A. Purpose of this Chapter

The safe operation and use of vehicles and motor vehicles is necessary for protection of the safety and health of the citizens of this State and as well as their property. The issuance, denial, cancellation, suspension, revocation of the license to drive and the regulation of the operation of vehicles, registration of vehicles and the regulation of the use of the highways and public vehicular areas are essential to protect the citizens of this State. The issuance, denial, cancellation, suspension, revocation of the license to drive or the registration of a vehicle is declared a matter of highway safety to be implemented by the Division in accordance with the laws of this Chapter. The issuance, denial, cancellation, suspension, revocation of the license to drive or the registration of a vehicle is not intended to be part of the punishment of a person who is convicted of a crime.

§ 20-16.5. Immediate civil license revocation for certain persons charged with implied-consent offenses

(a) Definitions. -- As used in this section the following words and phrases have the following meanings:

(1) ~~Charging Officer. -- As described in G.S. 20-16.2(a1)~~**[Recommendation 8, 30 adjudication]**

(2) Clerk. -- As defined in G.S. 15A-101(2).

(3) Judicial Official. -- As defined in G.S. 15A-101(5).

(4) Revocation Report. -- A sworn statement by a ~~charging~~ law enforcement officer and a chemical analyst containing facts indicating that the conditions of subsection (b) have been met, and whether the person has a pending offense for which the person's license had been or is revoked under this section. When one chemical analyst analyzes a person's blood and another chemical analyst informs a person of his rights and responsibilities under G.S. 20-16.2, the report must include the statements of both analysts.

(5) Surrender of a Driver's License. -- The act of turning over to a court or a law-enforcement officer the person's most recent, valid driver's license or learner's permit issued by the Division or by a similar agency in another jurisdiction, or a limited driving privilege issued by a North Carolina court. A person who is validly licensed but who is unable to locate his license card may file an affidavit with the clerk setting out facts that indicate that he is unable to locate his license card and that he is validly licensed; the filing of the affidavit constitutes a surrender of the person's license.

(b) Revocations for Persons Who Refuse Chemical Analyses or Who Are Charged With Certain Implied-Consent Offenses. -- A person's driver's license is subject to revocation under this section if:

(1) A ~~charging~~ law enforcement officer has reasonable grounds to believe that the person has committed an offense subject to the implied-consent provisions of G.S. 20-16.2;

(2) The person is charged with that offense as provided in G.S. 20-16.2(a);

(3) ~~The charging officer~~ A law enforcement officer and the chemical analyst comply with the procedures of G.S. 20-16.2 and G.S. 20-139.1 in requiring the person's submission to or procuring a chemical analysis; and

(4) The person:

a. Willfully refuses to submit to the chemical analysis;

b. Has an alcohol concentration of 0.08 or more within a relevant time after the driving;

c. Has an alcohol concentration of 0.04 or more at any relevant time after the driving of a commercial motor vehicle; or

d. Has any alcohol concentration at any relevant time after the driving and the person is under 21 years of age.

~~(b1) Precharge Test Results as Basis for Revocation. — Notwithstanding the provisions of subsection (b), a person's driver's license is subject to revocation under this section if:~~

~~—(1) The person requests a precharge chemical analysis pursuant to G.S. 20-16.2(i); and~~

~~—(2) The person has:~~

- ~~— a. An alcohol concentration of 0.08 or more at any relevant time after driving;~~
- ~~— b. An alcohol concentration of 0.04 or more at any relevant time after driving a commercial motor vehicle; or~~
- ~~— c. Any alcohol concentration at any relevant time after driving and the person is under 21 years of age; and~~

~~— (3) The person is charged with an implied consent offense.~~ **[Recommendation-8, 30, Adjudication]**

(c) Duty of Charging Officers and Chemical Analysts to Report to Judicial Officials. -- If a person's driver's license is subject to revocation under this section, ~~the charging law enforcement~~ officer and the chemical analyst must execute a revocation report. If the person has refused to submit to a chemical analysis, a copy of the affidavit to be submitted to the Division under G.S. 20-16.2(c) may be substituted for the revocation report if it contains the information required by this section. It is the specific duty of the charging officer to make sure that the report is expeditiously filed with a judicial official as required by this section.

(d) Which Judicial Official Must Receive Report. -- The judicial official with whom the revocation report must be filed is:

(1) The judicial official conducting the initial appearance on the underlying criminal charge if:

- a. No revocation report has previously been filed; and
- b. At the time of the initial appearance the results of the chemical analysis, if administered, or the reports indicating a refusal, are available.

(2) A judicial official conducting any other proceeding relating to the underlying criminal charge at which the person is present, if no report has previously been filed.

~~(3) The clerk of superior court in the county in which the underlying criminal charge has been brought~~ Division if subdivisions (1) and (2) are not applicable at the time the charging officer must file the report.

(e) Procedure if Report Filed with Judicial Official When Person Is Present. -- If a properly executed revocation report concerning a person is filed with a judicial official when the person is present before that official, the judicial official shall, after completing any other proceedings involving the person, determine whether there is probable cause to believe that each of the conditions of subsection (b) has been met. If he determines that there is such probable cause, he shall enter an order revoking the person's driver's license for the period required in this subsection. The judicial official shall order the person to surrender his license and if necessary may order a law-enforcement officer to seize the license. The judicial official shall give the person a copy of the revocation order. In addition to setting it out in the order

the judicial official shall personally inform the person of his right to a hearing as specified in subsection (g), and that his license remains revoked pending the hearing. The revocation under this subsection begins at the time the revocation order is issued and continues until the person's license has been surrendered for the period specified in this subsection, and the person has paid the applicable costs. ~~The period of revocation is 30 days, if there are no pending offenses for which the person's license had been or is revoked under this section. If at the time of the current offense, the person has one or more pending offenses for which his license had been or is revoked under this section, the~~ The revocation shall remain in effect until a final judgment, including all appeals, has been entered for the current offense and for all pending offenses. In no event, may the period of revocation under this subsection be less than 30 days. If within five working days of the effective date of the order, the person does not surrender his license or demonstrate that he is not currently licensed, the clerk shall immediately issue a pick-up order. The pick-up order shall be issued to a member of a local law-enforcement agency if the charging officer was employed by the agency at the time of the charge and the person resides in or is present in the agency's territorial jurisdiction. In all other cases, the pick-up order shall be issued to an officer or inspector of the Division. A pick-up order issued pursuant to this section is to be served in accordance with G.S. 20-29 as if the order had been issued by the Division.

(f) Procedure if Report Filed with ~~Clerk of Court~~ Division When Person Not Present. -- When ~~a clerk~~ the Division receives a properly executed report under subdivision (d)(3) ~~and the person named in the revocation report is not present before the clerk, the clerk~~ it shall determine whether there is probable cause to believe that each of the conditions of subsection (b) has been met. For purposes of this subsection, a properly executed report under subdivision (d)(3) may include a sworn statement by the charging officer along with an affidavit received directly by the Clerk Division from the chemical analyst. If he determines that there is such probable cause, he shall mail to the person a revocation order by first-class mail. The order shall direct that the person on or before the effective date of the order either surrender his license ~~to the clerk~~ the Division or appear before ~~the clerk~~ the Division and demonstrate that he is not currently licensed, and the order shall inform the person of the time and effective date of the revocation and of its duration, of his right to a hearing as specified in subsection (g), and that the revocation remains in effect pending the hearing. Revocation orders mailed under this subsection become effective on the fourth day after the order is deposited in the United States mail. If within five working days of the effective date of the order, the person does not surrender his license to the ~~clerk~~ Division or appear before ~~the clerk~~ Division to demonstrate that he is not currently licensed, the ~~clerk~~ Division shall immediately issue a pick-up order. The pick-up order shall be issued and served in the same manner as specified in subsection (e) for pick-up orders issued pursuant to that subsection. A revocation under this subsection begins at the date specified in the order and continues until the person's license has been revoked for the period specified in this subsection and the person has paid the applicable costs. ~~If the person has no pending offenses for which his license had been or is revoked under this section, the period of revocation under this subsection is:~~

~~—(1) Thirty days from the time the person surrenders his license to the court, if the surrender occurs within five working days of the effective date of the order; or~~

~~—(2) Thirty days after the person appears before the clerk and demonstrates that he is not currently licensed to drive, if the appearance occurs within five working days of the effective date of the revocation order; or~~

~~—(3) Forty five days from the time:~~

~~—a. The person's drivers license is picked up by a law enforcement officer following service of a pick-up order; or~~

~~—b. The person demonstrates to a law enforcement officer who has a pick-up order for his license that he is not currently licensed; or~~

~~—c. The person's drivers license is surrendered to the court if the surrender occurs more than five working days after the effective date of the revocation order; or~~

~~—d. The person appears before the clerk to demonstrate that he is not currently licensed, if he appears more than five working days after the effective date of the revocation order.~~

If at the time of the current offense, the person has one or more pending offenses for which his license had been or is revoked under this section, the The revocation shall remain in effect until a final judgment, including all appeals, has been entered for the current offense and for all pending offenses. In no event may the period of revocation for the current offense be less than the applicable period of revocation in subdivision (1), (2), or (3) of this subsection. When a pick-up order is issued, it shall inform the person of his right to a hearing as specified in subsection (g), and that the revocation remains in effect pending the hearing. An officer serving a pick-up order under this subsection shall return the order to the court indicating the date it was served or that he was unable to serve the order. If the license was surrendered, the officer serving the order shall deposit it with the clerk within three days of the surrender.

(g) Hearing before ~~Magistrate or Judge~~ if Person Contests Validity of Revocation. -- A person whose license is revoked under this section may request in writing a hearing to contest the validity of the revocation. The request may be made at the time of the person's initial appearance, or within 10 days of the effective date of the revocation to the Division in a manner required by the Division ~~the clerk or a magistrate designated by the clerk, and may specifically request that the hearing be conducted by a district court judge.~~ The Administrative Office of the Courts, in consultation with the Division, must develop a hearing request form for any person requesting a hearing and which includes the filing of the revocation report forms along with the hearing request. ~~Unless a district court judge is requested, the hearing must be conducted within the county by a magistrate assigned by the chief district court judge to conduct such hearings. If the person requests that a district court judge hold the hearing, the hearing must be conducted within the district court district as defined in G.S. 7A-133 by a district court judge assigned to conduct such hearings.~~ The revocation remains in effect pending the hearing, but the hearing must be held ~~within three working days following the request if the hearing is before a magistrate or within five working days if the hearing is before a district court judge.~~ The request for the hearing must

specify the grounds upon which the validity of the revocation is challenged and the hearing must be limited to the grounds specified in the request. A witness may submit his evidence by affidavit unless he is subpoenaed to appear. Any person who appears and testifies is subject to questioning by the ~~judicial~~ official conducting the hearing, and the ~~judicial~~ official may adjourn the hearing to seek additional evidence if he is not satisfied with the accuracy or completeness of evidence. The person contesting the validity of the revocation may, but is not required to, testify in his own behalf. Unless contested by the person requesting the hearing, the ~~judicial~~ official may accept as true any matter stated in the revocation report. If any relevant condition under subsection (b) is contested, the ~~judicial~~ official must find by the greater weight of the evidence that the condition was met in order to sustain the revocation. At the conclusion of the hearing the ~~judicial~~ official must enter an order sustaining or rescinding the revocation. The ~~judicial~~ official's findings are without prejudice to the person contesting the revocation and to any other potential party as to any other proceedings, civil or criminal, that may involve facts bearing upon the conditions in subsection (b) considered by the ~~judicial~~ official. The decision of the ~~judicial~~ official is ~~final and may not be appealed in the General Court of Justice~~ may be appealed to Superior Court on the record. If the hearing is not held and completed ~~within three working days of the written request for a hearing before a magistrate or within five working days of the written request for a hearing before a district court judge~~, the ~~judicial~~ official ~~must enter an order rescinding the revocation a temporary drivers license until the hearing can be held~~, unless the person contesting the revocation contributed to the delay in completing the hearing. If the person requesting the hearing fails to appear at the hearing or any rescheduling thereof after having been properly notified, he forfeits his right to a hearing.

(h) Return of License. -- After the applicable period of revocation under this section, or if ~~the magistrate or judge orders~~ the revocation is rescinded, the person whose license was revoked may apply to the Division ~~the clerk for return of his surrendered license~~. Unless ~~the clerk finds that~~ the person is not eligible to use the surrendered license, ~~he~~ the Division must return it if:

(1) The applicable period of revocation has passed and the person has tendered payment for the costs under subsection (j); or

(2) The ~~magistrate or judge has ordered the~~ revocation has been rescinded.

If the driver is required to have an ignition interlock pursuant to G.S. 20-16.6, the Division shall include the license a restriction that limits the driver to operating a vehicle equipped with an ignition interlock. This restriction shall remain on the license until the driver has complied with G.S. 20-16.6. If the license has expired, he may return it to the person with a caution that it is no longer valid. Otherwise, if the person is not eligible to use the license and the license was issued by the Division or in another state, the clerk must mail it to the Division. If the person has surrendered his copy of a limited driving privilege and he is no longer eligible to use it, the clerk must make a record that he has withheld the limited driving privilege and forward that record to the clerk in the county in which the limited driving privilege was issued for filing in the case file. If the person's license is revoked under this section and under another section of this Chapter, the clerk must surrender the license to the Division if the

revocation under this section can terminate before the other revocation; in such cases, the costs required by subsection (j) must still be paid before the revocation under this section is terminated.

(i) Effect of Revocations. -- A revocation under this section revokes a person's privilege to drive in North Carolina whatever the source of his authorization to drive. Revocations under this section are independent of and run concurrently with any other revocations. No court imposing a period of revocation following conviction of an offense involving impaired driving may give credit for any period of revocation imposed under this section. A person whose license is revoked pursuant to this section is not eligible to receive a limited driving privilege except as specifically authorized by G.S. ~~20-16.5(p)~~ 20-11.1 **[Recommendation 1, Integrated Solutions]**.

(j) Costs. -- Unless ~~the magistrate or judge orders~~ the revocation is rescinded, a person whose license is revoked under this section must pay a fee of fifty dollars (\$ 50.00) as costs for the action before the person's license may be returned under subsection (h) or when the driver obtains a limited privilege is issue pursuant to G.S. 20-11.1. **[Recommendation 1, Integrated Solutions]**. The costs collected under this section shall be credited to the General Fund. Fifty percent (50%) of the costs collected shall be used to fund a statewide chemical alcohol testing program administered by the Injury Control Section of the Department of Health and Human Services.

(k) Report to Division. -- ~~Except as provided below, the clerk shall mail a report to the Division:~~

~~—(1) If the license is revoked indefinitely, within 10 working days of the revocation of the license; and~~

~~—(2) In all cases, within 10 working days of the return of a license under this section or of the termination of a revocation of the driving privilege of a person not currently licensed.~~

~~The clerk shall electronically notify the Division within one working day of any revocation under this section. This report shall identify the person whose license has been revoked, specify the date on which his license was revoked, and provide any other information requested by the Division indicate whether the license has been returned. The report must also provide, if applicable, whether the license is revoked indefinitely. No report need be made to the Division, however, if there was a surrender of the driver's license issued by the Division, a 30-day minimum revocation was imposed, and the license was properly returned to the person under subsection (h) within five working days after the 30-day period had elapsed.~~

(1) Restoration Fee for Unlicensed Persons. -- If a person whose license is revoked under this section has no valid license, he must pay the restoration fee required by G.S. 20-7 before he may apply for a license from the Division.

(m) Modification of Revocation Order. -- ~~Any judicial official presiding over a proceeding under this section~~ The Division may issue a modified order if he determines that an inappropriate order has been issued.

(n) ~~Exception for Revoked Licenses. -- Notwithstanding any other provision of this section, if the judicial official required to issue a revocation order under this section determines that the person whose license is subject to revocation under subsection (b):~~

~~—(1) Has a currently revoked driver's license;~~

~~—(2) Has no limited driving privilege; and~~

~~—(3) Will not become eligible for restoration of his license or for a limited driving privilege during the period of revocation required by this section;~~

~~the judicial official need not issue a revocation order under this section. In this event the judicial official must file in the records of the civil proceeding a copy of any documentary evidence and set out in writing all other evidence on which he relies in making his determination.~~

(o) Designation of Proceedings. -- Proceedings under this section are civil actions, and must be identified by the caption "In the Matter of " and filed as directed by the Administrative Office of the Courts.

(p) Limited Driving Privilege. -- A person whose drivers license has been revoked ~~for a specified period of 30 or 45 days under this section~~ may apply for a limited driving privilege pursuant G.S. 20-11.1 **[Recommendation 1, Integrated Solutions].if:**

(1) At the time of the alleged offense the person held either a valid drivers license or a license that had been expired for less than one year;

(2) Does not have an unresolved pending charge involving impaired driving except the charge for which the license is currently revoked under this section or additional convictions of an offense involving impaired driving since being charged for the violation for which the license is currently revoked under this section;

(3) The person's license has been revoked for at least 10 days ~~if the revocation is for 30 days or 30 days if the revocation is for 45 days;~~ and

(4) The person has obtained a substance abuse assessment from a mental health facility and registers for and ~~agrees to participate~~ is participating in any recommended training or treatment program.

~~A person whose license has been indefinitely revoked under this section may, after completion of 30 days under subsection (e) or the applicable period of time under subdivision (1), (2), or (3) of subsection (f), apply for a limited driving privilege. In the case of an~~

~~indefinite revocation, a judge of the division in which the current offense is pending may issue the limited driving privilege only if the privilege is necessary to overcome undue hardship and the person meets the eligibility requirements of G.S. 20-179.3, except that the requirements in G.S. 20-179.3(b)(1)c. and G.S. 20-179.3(e) shall not apply. Except as modified in this subsection, the provisions of G.S. 20-179.3 relating to the procedure for application and conduct of the hearing and the restrictions required or authorized to be included in the limited driving privilege apply to applications under this subsection. Any district court judge authorized to hold court in the judicial district is authorized to issue such a limited driving privilege. A limited driving privilege issued under this section authorizes a person to drive if the person's license is revoked solely under this section. If the person's license is revoked for any other reason, the limited driving privilege is invalid.~~

§ 20-16.6. Seizure, impoundment and restriction of motor vehicle registration for certain drivers charged with offenses involving impaired driving.

(a) Motor Vehicles Registration Plate Subject to Seizure. – The registration plate and card of a motor vehicle that is driven by a person who is charged with an implied consent offense is subject to seizure if the person driving the motor vehicle (1) has an alcohol concentration of 0.16 or more, (2) refuses to submit to a chemical analysis, or (3) who has a prior conviction for an offense involving impaired driving that the conviction date was within 10 years [Recommendation #9, 37Adjudication] and submits to a chemical analysis and the results are 0.08 or more, or 0.04 or more if operating a commercial motor vehicle or 0.01 or more if under age 21.

(b) Duty of Officer. - If the charging officer has probable cause to believe that the driver of a motor vehicle has committed an implied consent offense, the charging officer shall seize the registration plate and card of the motor vehicle driven by the defendant. The Charging Officer replace the seized registration plate with a temporary registration plate provided by the Division and indicate on the temporary registration plate the expiration date of 10 calendar days from the date of the plate seizure.

(b) When Registration Plate shall not be seized. -- The officer shall not seize the registration plate and card if the officer determines prior to seizure of the motor vehicle registration plate and card that the motor vehicle:

(1) had been reported stolen,

(2) is a rental vehicle registered to a company in the business of renting vehicles,

(3) is registered in another state or jurisdiction, or

(3) was wrecked and appears to be a total loss.

Probable cause may be based on the officer's personal knowledge, reliable information conveyed by another officer, records of the Division, or other reliable source.

(c) Return of Registration Plate to driver by Officer. – If after the driver of the motor vehicle is offered a chemical analysis, the driver does not meet the requirements of subsection (a), the chemical analysis selected is a blood or urine test and the results are not available, or the magistrate determines there no probable cause for the charges, the officer shall return the registration plate and card to the driver by returning the registration plate and card to the driver upon release from custody or placing the plate with the personal effects of the driver at the jail or hospital. The charging officer may request the driver or property custodian at the jail or hospital to sign a receipt acknowledging return of the registration plate and card.

(d) Notification of driver and Division. – If the registration plate and card are not returned to the driver as provided in subsection (c), the officer shall provide the driver with a notification of requirements for obtaining a new registration plate and card. The notification form shall be provided by the Division. The officer shall within 48 hours transmit the registration plate and card along with the Revocation Report(s) of the law enforcement officer and chemical analyst provided in G.S. 20-16.5 to the Division in accordance with procedures established by the Division. The report forms shall be modified to include the necessary registration information.

(e) Report of result of Blood or Urine test. - An officer who receives chemical analyst affidavit or report of the blood or urine of a driver indicating that the registration plate and card are subject to seizure under subsection (a), the officer shall send a copy of the Revocation Report(s) provided for in G.S. 20-16.5 to the Division in accordance with the Division's procedures.

(f) Duty of Division upon receipt of plate and revocation reports. – Upon receipt of the registration plate and card and revocation reports, the Division shall determine if the registration plate and card were properly seized under subsection (a). If not, then the Division shall flag the registration file indicating that the registration plate was improperly seized and mail to the registered owner within 72 hours by first-class mail to the most recent address contained in the Division's records the procedure for obtaining new registration at no cost. A copy of this notification shall also be sent to head of the law enforcement agency of the officer who seized the plate. If the Division determines from the report(s) that the registration plate and card were properly seized, but that a registered owner was not driver of the vehicle, the Division shall revoke the registration of the vehicle effective 10 days from the date of the seizure and mail to the registered owner within 72 hours by first-class mail to the most recent address contained in the Division's records the procedure for obtaining new registration. If the Division determines from the report(s) that the registration plate and card were properly seized and that a registered owner was the driver of the vehicle, the Division shall revoke the registration of the vehicle effective 10 days from the date of the seizure. If the driver is the registered owner of any other vehicle, the Division shall also mail to the registered owner within 72 hours by first-class mail to the most recent address contained in the Division's records a notice that the registration on all vehicle register in the driver's name will be revoked effective 10 days from the date specified in the letter, which shall be 4 days after mailing, if the driver does not equip all registered vehicles with an ignition interlock in accordance with this section. The Division shall indicate in the registration file of all vehicles owned by the driver and require any person registering any of the vehicles to sign an acknowledgement that the driver is not allowed to operate the vehicle unless it is equipped with an ignition interlock and the driver has a valid license. The acknowledgement shall also inform the new registered owner that a violation of this provision shall result in revocation of the registration of all vehicles registered in the owner's name.

(g) Duty of Division upon receipt of blood or urine test results. – Upon receipt of revocation reports of a blood or urine test, the Division shall determine if the motor vehicle registration plate and card are subject to seizure under this section. If so and a registered owner was the driver of the vehicle, the Division shall notify the registered owner that he must surrender his registration plate or show proof of installation of an ignition interlock in accordance with this section within 10 days of date specified in the letter, which shall be 4 days after mailing and pay a fee of fifty dollars (\$50.00). The letter shall outline the procedure for obtaining the ignition interlock and surrendering the registration plate. If a registered owner was not the

driver of the vehicle, then the Division shall notify the registered owner that the owner's vehicle registration is subject to cancellation if the registered owner allows the driver to operate the vehicle without a valid license, or fails to return the signed acknowledgement and pay a fee of fifty dollars (\$50.00) and if the driver is impaired when driving the vehicle, the vehicle is subject to seizure and forfeiture. This letter shall require the registered owner(s) to sign and return to the Division an acknowledgement that the registered owner will not allow the driver to operate the vehicle unless properly licensed and payment of the fee. The Division shall enter into its records that this acknowledgement was sent. If the signed acknowledgement is not returned, the registration of the vehicle shall be cancelled. If the acknowledgement is signed and returned, the Division shall enter the acknowledgement in its records and make this information available to law enforcement officers.

(h) Issuance of new registration. – A registered owner of a vehicle who was the driver of the vehicle when the vehicle registration plate was seized will not be allowed register any vehicle unless all vehicles are equipped with ignition interlock in accordance with the procedures of G.S. 20-17.8 and pays a fee of fifty dollars (\$50.00) and shows a valid license and proof of insurance. If the registered owner who was the driver of the vehicle transfers ownership to another, the person registering the vehicle shall be require to sign an acknowledgement as provided in this section. A registered owner of a vehicle who was not the driver of the vehicle when the vehicle registration plate was seized will not be allowed register any vehicle unless all registered owners sign the acknowledgement provided for in this section, shows a valid license, proof of insurance and pays a fee of fifty dollars (\$50.00).

(i) Length of time for ignition interlock. – When an ignition interlock is required under this section, the Division shall not remove the restriction on registration of vehicle and drivers license all of the following have been met:

(1) the driver has successfully completed the required level of substance abuse treatment required by the substance abuse assessment, (2) the driver has not attempted to start the vehicle will any amount of alcohol in his system for at least four months as shown by the records of the ignition interlock, (3) the driver does not have any unresolved pending motor vehicle law charges, (4) the driver is not required to have an ignition interlock by any other provision of law, and (5) the driver shows proof of insurance. The time that the ignition interlock has been installed under this section shall be applied towards the requirements of an ignition interlock required by G.S. 20-17.8.

j. indigent offenders. If the Division determines that the driver is indigent and the sole supporter of his house hold and that the vehicle is essential to the driver working, the Division may provide the ignition interlock and plate without costs.

§ 20-28.2. Forfeiture of motor vehicle for impaired driving after impaired driving license revocation or driving without an ignition interlock and revoked registration.

* * * * *

(b) When Motor Vehicle Becomes Property Subject to Order of Forfeiture. - If at a sentencing hearing for the underlying offense involving impaired driving or a violation of G.S. 20-28.10, at a separate hearing after conviction of the defendant, or at a forfeiture hearing held at least 60 days after the defendant failed to appear at the scheduled trial for the underlying offense

and the defendant's order of arrest for failing to appear has not been set aside, the judge determines by the greater weight of the evidence that the defendant is guilty of an offense involving impaired driving and that the defendant's license was revoked pursuant to an impaired driving license revocation as defined in subsection (a) of this section or the defendant violated G.S. 2-28.10, the motor vehicle that was driven by the defendant at the time the defendant committed the offense becomes property subject to an order of forfeiture.

§ 20-28.3. Seizure, impoundment, forfeiture of motor vehicles for offenses involving impaired driving while license revoked or driving without an ignition interlock and revoked registration.

• (a)Motor Vehicles Subject to Seizure. - A motor vehicle that is driven by a person who is charged with an offense involving impaired driving is subject to seizure if at the time of the violation the drivers license of the person driving the motor vehicle was revoked as a result of a prior impaired driving license revocation as defined in G.S. 20-28.2(a). A motor vehicle that is driven by a person who is charged with violation G.S. 20-28.10

* * *

§ 20-28.10. Unlawful to drive without ignition interlock. Any person who drives a motor vehicle upon the highways of the State without an installed and operable ignition interlock when required by this Chapter and the registration of the motor vehicle is revoked pursuant to G.S. 20-16.6., is guilty of a Class 1 misdemeanor. Upon conviction, the person's license shall be revoked for a period of one year for the first offense, two years for the second offense, and permanently for a third or subsequent offense. Notwithstanding any other provision of law, upon conviction, the defendant shall at a minimum be sentenced to either 30-day house arrest or seven days of jail time in discretion of the court, which sentence shall not be suspended or deferred.

Appendix D

CHECKING STATIONS & ROADBLOCKS

§ 20-16.3A. ~~Impaired driving checks.~~ Checking Stations and Roadblocks

(a) A law-enforcement agency may ~~make impaired driving checks of drivers of vehicles~~ conduct checking stations to determine compliance with the provisions of this chapter on highways and public vehicular areas. ~~if~~ If the agency is conducting a checking station for the purposes of determining compliance with this chapter, it must:

~~—— (1) Develops a systematic plan in advance that takes
—— into account the likelihood of detecting impaired
—— drivers, traffic conditions, number of vehicles to
—— be stopped, and the convenience of the motoring
—— public.~~

~~(2) (1) Designates in advance the pattern both for stopping vehicles and for requesting drivers that are stopped to submit to alcohol screening tests to produce drivers license, registration and/or insurance information. The plan pattern need not be in writing and may include contingency provisions for altering either pattern if actual traffic conditions are different from those anticipated, but no individual officer may be given discretion as to which vehicle is stopped or, of the vehicles stopped, which driver is requested to submit to an alcohol screening test to produce drivers license, registration or insurance information.~~

~~(3) (2) Marks the area in which checks are conducted to advise the public that an authorized impaired driving check- checking station is being made operated by having at a minimum one law enforcement vehicle with its blue light in operation during the conducting of the checking station.~~

An officer who determines there is a reasonable suspicion that the driver has violated a provision of this chapter or any other provision of law may detain the driver to further investigate in accordance with law. The operator of any vehicle stopped at a checking station established under this subsection may be requested to submit to an alcohol screening test under G.S. 20-16.3 if during the course of the stop the officer determines the driver had previously consumed alcohol or has an open container of alcoholic beverage in the vehicle. The officer so requesting shall consider the results of any alcohol screening test or the drivers refusal in determining if there is reasonable suspicion to investigate further.

(b) Other Roadblocks. Law enforcement agencies may conduct any other type of checking station or roadblock as long as it is established and operated in accordance with the provision of the United State Constitution and the Constitution of North Carolina.

~~This section does not prevent an officer from using the authority of G.S. 20-16.3 to request a screening test if, in the course of dealing with a driver under the authority of this section, he develops grounds for requesting such a test under G.S. 20-16.3. Alcohol screening tests and~~

~~the results from them are subject to the provisions of subsections (b), (c), and (d) of G.S. 20-16.3. This section does not limit the authority of a law enforcement officer or agency to conduct a license check independently or in conjunction with the impaired driving check, to administer psychophysical tests to screen for impairment, or to utilize roadblocks or other types of vehicle checks or checkpoints that are consistent with the laws of this State and the Constitution of North Carolina and of the United States. No court shall suppress any evidence or dismiss any case unless the court specifies in writing that there was a substantial and willful violation of the provisions of this section and that such violation was not made in good faith and such violation amounts to a violation of the United States Constitution or the Constitution of North Carolina.~~

Appendix E

PROVIDE FOR IMPLIED CONSENT PRETRIAL AND COURT PROCEEDINGS.

- a. establish a pretrial procedure for processing impaired drivers
- b. written motion in district court
- c. allow the state to appeal
- d. restrict grounds for suppressing evidence or dismissing case

Article 2D

Implied Consent Offense Procedures

G.S. 20-38. Applicability.

Notwithstanding any other provision of law, the procedures set forth herein shall be followed for the investigation and processing of an implied consent offense defined in G.S. 20-16.2. The trial procedures shall apply to any implied consent offense litigated in the district court division.

G.S. 20-38.1. Investigation. – A law enforcement officer who is investigating an implied consent offense or a vehicle crash is authorized to seek evidence of the driver's impairment wherever the driver is located and the provisions of the implied consent law apply even if the driver is located outside of this State or outside of the officer's territorial jurisdiction.

G.S. 20-38.2 Police Processing duties.

Upon the arrest of a person, with or without a warrant, but not necessarily in the order listed, a law enforcement officer:

(1) Must inform the person arrested of the charges or a cause for the arrest;

(2) May take the person arrested to any place inside or outside the officer's territorial jurisdiction for one or more chemical analysis at the request of any law enforcement officer and for any evaluation by a law enforcement officer, medical professional or other person to determine the extent or cause of the person's impairment;

(3) may take the person arrested to some other place to place for the purpose of having the person identified, to complete a crash report or for any other lawful purpose;

(4) may take photographs and fingerprints in accordance with G.S. 15A-502;

(5) After completion of all investigatory procedures, crash reports, and chemical analyses and other procedures provided in this subsection, must take the person arrested before a judicial official for an initial appearance.

G.S. 20-38.3 Initial appearance.

(a) Appearance before a Magistrate.

Except as modified in this article a magistrate shall follow the procedures set forth in Article 24 of Chapter 15A of the General Statutes.

(1) A magistrate may hold an initial appearance at any place within the county and shall, to the extent practicable, be available at locations other than the courthouse when it will expedite the initial appearance;

(2) In determining whether there is probable cause to believe a person is impaired, the magistrate is authorized to review all alcohol screening tests, chemical analyses, receive testimony from any law enforcement officer concerning impairment and the circumstances of the arrest and observe the person arrested and only if all of the evidence would lead a reasonable person to believe that a crime was not committed or that this person did not commit a crime, the magistrate shall find probable cause;

(3) If there is a finding of probable cause, the magistrate shall consider whether the person is impaired to the extent that the provisions of G.S. 15A-534.2 should be imposed;

(4) Inform the person in writing of the established procedure to have persons appear at the jail to observe his condition or to administer an additional chemical analysis if the person is unable to make bond. Require the person who is unable to make bond to list all persons he wishes to contact and telephone numbers on a form that sets forth the procedure for contacting the persons listed. A copy of this form shall be filed with the case file; and

(b) The Administrative Office of the Courts shall adopt forms to implement this Article.

G.S. 20-38.4. Facilities.

(a) The Chief District Court Judge, the Department of Health and Human Services, the District Attorney and the Sheriff shall:

(1) establish a written procedure for attorneys and witnesses to have access to the chemical analysis room;

(2) approve the location of written notice of implied consent rights in the chemical analysis room in accordance with G.S. 20-16.2; and

(3) approve a procedure for access to a person arrested for an implied consent offense by family and friends or a qualified person contracted with by the arrested person to obtain blood or urine when the arrested person is held in custody and unable to obtain pretrial release from jail.

(b) Signs shall be posted explaining to the public the procedure for obtaining access to the room where the chemical analysis of the breath is administered and to any person arrested for

an implied consent offense. The initial signs shall be provided by the Department of Transportation, without costs. Signs shall be maintained by the county for all county buildings and the county courthouse.

(c) If the instrument for performing a chemical analysis of the breath is located in a State or Municipal building then the head of the Highway Patrol for the county or the chief of police for the city or their designee shall be substituted for the sheriff when determining signs and access to the chemical analysis room. The signs shall be maintained by the owner of the building. When a breath testing instrument is in a motor vehicle or at a temporary location, the Department of Health and Human Services shall alone perform the above functions listed in subsection (a)(1) and (a)(2).

G.S. 20-38.5. Motions and district court procedure.

(a) The defendant may move to suppress evidence or dismiss the charges only prior to trial, except the defendant may move to dismiss the charges for insufficient evidence at the close of the State's evidence and at the close of all of the evidence;

(b) A motion to suppress evidence or dismiss the charges made before trial must be in writing and a copy of the motion must be served upon the State at least seven days prior to any hearing. The motion must state the grounds upon which it is made. The motion must be accompanied by an affidavit containing facts supporting the motion. The affidavit may be based upon personal knowledge, or upon information and belief, if the source of the information and the basis for the belief are stated. The State may file an answer denying or admitting any of the allegations. A copy of the answer must be served on the defendant's attorney, or on the defendant if he has no counsel.

(c) The judge must summarily grant the motion to suppress evidence if:

(1) The motion complies with the requirements of subsection (b), it states grounds which require exclusion of the evidence, and the State concedes the truth of allegations of fact which support the motion; or

(2) The State stipulates that the evidence sought to be suppressed will not be offered in evidence in any criminal action or proceeding against the defendant.

(d) The judge may summarily deny the motion to suppress evidence if:

(1) The motion is not in writing or does not allege a legal basis for the motion; or

(2) The affidavit does not as a matter of law support the ground alleged.

(e) If the motion is not determined summarily the judge must make the determination after a hearing and finding of facts. Testimony at the hearing must be under oath.

(f) The judge must set forth in writing his findings of facts and conclusions of law.

G.S. 20-38.6 Appeal to Superior Court

(a) The State may appeal to superior court any district court pretrial order suppressing evidence or dismissing any charges. If there is a dispute about the findings of fact, the superior court shall not be bound by the findings of the district court but shall determine the matter de novo. Any further appeal shall be governed by Article 90 of Chapter 15A of the General Statutes.

(b) The defendant may not appeal a denial of a pretrial motion to suppress or to dismiss, but may appeal upon conviction as provided by law.

(c) For any implied consent offense that is first tried in district court and that is appealed to superior court, the case shall only be remanded back to district court with the consent of the prosecutor and the superior court. When a case remanded back to district court, the district court shall hold a new sentencing hearing and shall consider any new convictions and if the defendant has any pending charges of offenses involving impaired driving shall delay sentencing in the remanded case until all cases are resolved. [Recommendation 15-36 Adjudication see Appendix 16 P also]

G.S. 20-38.7 Remedy.

The failure to follow the procedures set forth in this chapter or Articles 24, 25, or 26 of Chapter 15A of the General Statutes shall not be grounds to dismiss a criminal charge or any theory of a criminal charge or suppression of evidence unless a court finds that the violation was intentional and not in good faith and as a result the defendant's rights under the United States Constitution or the Constitution of North Carolina were violated.

Appendix F

ALLOW ADMISSIBILITY OF DRUG RECOGNITION EXPERT AND HGN TESTIMONY AND OPINION AS TO SPEED OF AN ACCIDENT RECONSTRUCTION EXPERT.

- (a) Results of HGN test. Notwithstanding any provision of law, the results of an horizontal gauze nystagmus (HGN) test are admissible into evidence and the opinion as to whether the results are consistent with a chemical analysis or consistent with a person who is under the influence of a particular type or class of impairing substances, when the HGN test is administered by a person who has successfully completed training in HGN and administers the test in accordance with the training.
- (b) Opinion of Drug Recognition Expert (DRE). Notwithstanding any provision of law, the opinion of a DRE that a person is under the influence of one or more impairing substances and the category of such impairing substance or substances is admissible in any court or administrative hearing when the DRE holds a current certification as a DRE issued by the Department of Health and Human Services and examined the person in accordance with his training.
- (c) Opinion as to speed of a vehicle. Notwithstanding any other provision of law, any person who found by a court to be an expert in accident reconstruction who has performed a reconstruction of a crash or has reviewed the report of investigation may give an opinion as to the speed a vehicle even if the expert did not actually observe the vehicle moving.

Nothing contained in this section shall be construed to prohibit cross examination of any person as to their opinions and the basis for the opinions and shall not limit other opinion testimony otherwise admissible under the rules of evidence or court decision

Appendix G

Alcohol Screening Devices

§ 20-16.3. Alcohol screening tests required of certain drivers; approval of test devices and manner of use by ~~Commission for~~ Department of Health and Human Services; use of test results or refusal

(a) When Alcohol Screening Test May Be Required; Not an Arrest. -- A law-enforcement officer may require the driver of a vehicle to submit to an alcohol screening test within a relevant time after the driving if the officer has:

(1) Reasonable grounds to believe that the driver has consumed alcohol and has:

a. Committed a moving traffic violation; or

b. Been involved in an accident or collision; or

(2) An articulable and reasonable suspicion that the driver has committed an implied-consent offense under G.S. 20-16.2, and the driver has been lawfully stopped for a driver's license check or otherwise lawfully stopped or lawfully encountered by the officer in the course of the performance of the officer's duties.

Requiring a driver to submit to an alcohol screening test in accordance with this section does not in itself constitute an arrest.

(b) Approval of Screening Devices and Manner of Use. -- The ~~Commission for~~ Department of Health and Human Services is directed to examine and approve devices suitable for use by law-enforcement officers in making on-the-scene tests of drivers for alcohol concentration. For each alcohol screening device or class of devices approved, the ~~Commission-~~ Department must adopt regulations governing the manner of use of the device. For any alcohol screening device that tests the breath of a driver, the ~~Commission~~ Department is directed to specify in its regulations the shortest feasible minimum waiting period that does not produce an unacceptably high number of false positive test results.

(c) Tests Must Be Made with Approved Devices and in Approved Manner. -- No screening test for alcohol concentration is a valid one under this section unless the device used is one approved by the ~~Commission for Health Services~~ Department and the screening test is conducted in accordance with the applicable regulations of the ~~Commission~~ Department as to the manner of its use.

(d) Use of Screening Test Results or Refusal by Officer. -- The results of an alcohol screening test or a driver's refusal to submit may be used by a law-enforcement officer, and are admissible in a court, or an administrative agency in determining if there are reasonable grounds for believing that the driver has committed an implied-consent offense under G.S. 20-16.2 and to prove that the driver had consumed alcohol and that the driver had in his or her

body alcohol previously consumed, but not to prove a particular alcohol concentration.
Negative or low results on the alcohol screening test may be used in factually appropriate cases by the officer, a court, or an administrative agency in determining whether a person's alleged impairment is caused by an impairing substance other than alcohol. ~~Except as provided in this subsection, the results of an alcohol screening test may not be admitted in evidence in any court or administrative proceeding.~~

Appendix H

Clarifying Per Se offenses

G.S. 20-138.1 Impaired Driving

(a) Offense. -- A person commits the offense of impaired driving if he drives any vehicle upon any highway, any street, or any public vehicular area within this State:

- (1) While under the influence of an impairing substance; or
- (2) After having consumed sufficient alcohol that he ~~has~~ submits to a chemical analysis and the result is 0.08 or more, at any relevant time after the driving, ~~an alcohol concentration of 0.08 or more~~,
- or
- (3) with any amount of a Schedule I, or II controlled substance or its metabolites in his blood or urine.

(b) Defense Precluded. -- The fact that a person charged with violating this section is or has been legally entitled to use alcohol or a drug is not a defense to a charge under this section.

(c) Pleading. -- In any prosecution for impaired driving, the pleading is sufficient if it states the time and place of the alleged offense in the usual form and charges that the defendant drove a vehicle on a highway or public vehicular area while subject to an impairing substance.

(d) Sentencing Hearing and Punishment. -- Impaired driving as defined in this section is a misdemeanor. Upon conviction of a defendant of impaired driving, the presiding judge must hold a sentencing hearing and impose punishment in accordance with G.S. 20-179.

~~(e) Exception. -- Notwithstanding the definition of "vehicle" pursuant to G.S. 20-4.01(49), for purposes of this section the word "vehicle" does not include a horse, bicycle, or lawnmower.~~

§ 20-138.2. Impaired driving in commercial vehicle

(a) Offense. -- A person commits the offense of impaired driving in a commercial motor vehicle if he drives a commercial motor vehicle upon any highway, any street, or any public vehicular area within the State:

- (1) While under the influence of an impairing substance; or
- (2) After having consumed sufficient alcohol that he ~~has~~ submits to a chemical analysis and the result is 0.04 or more, at any relevant time after the driving, ~~an alcohol concentration of 0.04 or more~~,
- or
- (3) with any amount of a Schedule I, or II controlled substance or its metabolites in his blood or urine. [**Recommendation 28, Adjudication**]

(b) Defense Precluded. -- The fact that a person charged with violating this section is or has been legally entitled to use alcohol or a drug is not a defense to a charge under this section.

(c) Pleading. -- To charge a violation of this section, the pleading is sufficient if it states the time and place of the alleged offense in the usual form and charges the defendant drove a commercial motor vehicle on a highway, street, or public vehicular area while subject to an impairing substance.

(d) Implied Consent Offense. -- An offense under this section is an implied consent offense subject to the provisions of G.S. 20-16.2. The provisions of G.S. 20-139.1 shall apply to an offense committed under this section.

(e) Punishment. -- The offense in this section is a misdemeanor and any defendant convicted under this section shall be sentenced under G.S. 20-179. This offense is not a lesser included offense of impaired driving under G.S. 20-138.1, and if a person is convicted under this section and of an offense involving impaired driving under G.S. 20-138.1 arising out of the same transaction, the aggregate punishment imposed by the Court may not exceed the maximum punishment applicable to the offense involving impaired driving under G.S. 20-138.1.

(f) Repealed by Session Laws 1991, c. 726, s. 19.

(g) ~~Chemical Analysis Provisions. -- The provisions of G.S. 20-139.1 shall apply to the offense of impaired driving in a commercial motor vehicle. --~~ An offense under this section is an implied-consent offense subject to the provisions of G.S. 20-16.2. The provisions of G.S. 20-139.1 shall apply to an offense committed under this section.

Appendix I

Felony Death by Vehicle & Injury by Vehicle

§ 20-141.4. Felony and misdemeanor death by vehicle.

(a) Repealed by Session Laws 1983, c. 435, s. 27.

(a1) Felony Death by Vehicle. - A person commits the offense of felony death by vehicle if he unintentionally causes the death of another person while engaged in the offense of impaired driving under G.S. 20-138.1 or G.S. 20-138.2 and commission of that offense is the proximate cause of the death.

(a2) Misdemeanor Death by Vehicle. - A person commits the offense of misdemeanor death by vehicle if he unintentionally causes the death of another person while engaged in the violation of any State law or local ordinance applying to the operation or use of a vehicle or to the regulation of traffic, other than impaired driving under G.S. 20-138.1, and commission of that violation is the proximate cause of the death.

(a3) Felony Serious Injury by Vehicle. - A person commits the offense of felony serious injury by vehicle if he unintentionally causes serious injury to another person while engaged in the offense of impaired driving under G.S. 20-138.1 or G.S. 20-138.2, and commission of that offense is the proximate cause of the serious injury.

(b) Punishments. - Felony death by vehicle is a Class ~~G-D~~ felony. Felony serious injury by vehicle is a Class E felony. Misdemeanor death by vehicle is a Class 1 misdemeanor.

(c) No Double Prosecutions. - No person who has been placed in jeopardy upon a charge of death by vehicle may be prosecuted for the offense of manslaughter arising out of the same death; and no person who has been placed in jeopardy upon a charge of manslaughter may be prosecuted for death by vehicle arising out of the same death.

Appendix J

CLARIFICATION OF IMPAIRED DRIVING OFFENSES

1. Simplify definition of Public Vehicular Area, G.S. 20-4.01(32):

(32) **Public Vehicular Area.** - Any area within the State of North Carolina that meets one or more of the following requirements:

- a. The area is ~~generally open to and used by the public~~ for vehicular traffic at any time, including by way of illustration and not limitation any drive, driveway, road, roadway, street, alley, or parking lot upon the grounds and premises of any of the following:
 1. Any public or private hospital, college, university, school, orphanage, church, or any of the institutions, parks or other facilities maintained and supported by the State of North Carolina or any of its subdivisions.
 2. Any service station, drive-in theater, supermarket, store, restaurant, or office building, or any other business, residential, or municipal establishment providing parking space ~~for customers, patrons, or the public~~ whether the business or establishment is open or closed.
 3. Any property owned by the United States and subject to the jurisdiction of the State of North Carolina. (The inclusion of property owned by the United States in this definition shall not limit assimilation of North Carolina law when applicable under the provisions of Title 18, United States Code, section 13).
- b. The area is a beach area used by ~~the public~~ for vehicular traffic.
- c. The area is a road ~~opened to~~ used by vehicular traffic within or leading to a subdivision ~~for use by subdivision residents, their guests, and members of the public~~, whether or not the subdivision roads have been offered for dedication to the public.
- d. The area is a portion of private property used ~~for~~ by vehicular traffic and designated by the private property owner as a public vehicular area in accordance with G.S. 20-219.4.

2. Clarify Impaired driving offenses

G.S. 20-138.1 Impaired Driving

(a) Offense. -- A person commits the offense of impaired driving if he drives any vehicle upon any highway, any street, or any public vehicular area ~~within this State~~:

- (1) While under the influence of an impairing substance; or
- (2) After having consumed sufficient alcohol that he ~~has~~ submits to a chemical analysis and the result is 0.08 or more, [Recommendation 25, Adjudication] at any relevant time after the driving, ~~an alcohol concentration of 0.08 or more,~~
or

(3) with any amount of a Schedule I or II controlled substance or its metabolites in his blood or urine.

(b) Defense Precluded. -- The fact that a person charged with violating this section is or has been legally entitled to use alcohol or a drug is not a defense to a charge under this section.

(c) Pleading. -- In any prosecution for impaired driving, the pleading is sufficient if it states the time and place of the alleged offense in the usual form and charges that the defendant drove a vehicle on a highway or public vehicular area while subject to an impairing substance.

(d) Sentencing Hearing and Punishment. -- Impaired driving as defined in this section is a misdemeanor. Upon conviction of a defendant of impaired driving, the presiding judge must hold a sentencing hearing and impose punishment in accordance with G.S. 20-179.

~~(e) Exception. -- Notwithstanding the definition of "vehicle" pursuant to G.S. 20-4.01(49), for purposes of this section the word "vehicle" does not include a horse, bicycle, or lawnmower.~~

§ 20-138.2. Impaired driving in commercial vehicle

(a) Offense. -- A person commits the offense of impaired driving in a commercial motor vehicle if he drives a commercial motor vehicle upon any highway, any street, or any public vehicular area ~~within the State:~~

(1) While under the influence of an impairing substance; or

(2) After having consumed sufficient alcohol that he ~~has~~ submits to a chemical analysis and the result is 0.04 or more, [Recommendation 25, Adjudication] at any relevant time after the driving, ~~an alcohol concentration of 0.04 or more,~~
or

(3) with any amount of a Schedule I or II controlled substance or its metabolites in his blood or urine.

(a1) In order to prove the gross vehicle weight rating of a vehicle as defined in G.S. 20-4.01(12b), the opinion of a person who observed the vehicle as to the weight, testimony of the gross vehicle weight rating affixed to the vehicle, the registered or declared weight shown on the Division's records pursuant to G.S. 20-26(b1), the gross vehicle weight rating as determined from the vehicle identification number, publications from the manufacturer of the vehicle or any other description or evidence shall be admissible.

(b) Defense Precluded. -- The fact that a person charged with violating this section is or has been legally entitled to use alcohol or a drug is not a defense to a charge under this section.

(c) Pleading. -- To charge a violation of this section, the pleading is sufficient if it states the time and place of the alleged offense in the usual form and charges the defendant drove a commercial motor vehicle on a highway, street, or public vehicular area while subject to an impairing substance.

(d) Implied Consent Offense. -- An offense under this section is an implied consent offense subject to the provisions of G.S. 20-16.2. The provisions of G.S. 20-139.1 shall apply to an offense committed under this section.

(e) Punishment. -- The offense in this section is a misdemeanor and any defendant convicted under this section shall be sentenced under G.S. 20-179. This offense is not a lesser included offense of impaired driving under G.S. 20-138.1, and if a person is convicted under this section and of an offense involving impaired driving under G.S. 20-138.1 arising out of the same transaction, the aggregate punishment imposed by the Court may not exceed the maximum punishment applicable to the offense involving impaired driving under G.S. 20-138.1.

(f) Repealed by Session Laws 1991, c. 726, s. 19.

(g) Chemical Analysis Provisions. -- An offense under this section is an implied-consent offense subject to the provisions of G.S. 20-16.2. The provisions of G.S. 20-139.1 shall apply to the offense of impaired driving in a commercial motor vehicle.

§ 20-138.2A. Operating a commercial vehicle after consuming alcohol

(a) Offense. -- A person commits the offense of operating a commercial motor vehicle after consuming alcohol if the person drives a commercial motor vehicle, as defined in G.S. 20-4.01(3d)a. and b., upon any highway, any street, or any public vehicular area ~~within the State~~ while consuming alcohol or while alcohol remains in the person's body.

(a1) In order to prove the gross vehicle weight rating of a vehicle as defined in G.S. 20-4.01(12b), the opinion of a person who observed the vehicle as to the weight, testimony of the gross vehicle weight rating affixed to the vehicle, the registered or declared weight shown on the Division's records pursuant to G.S. 20-26(b1), the gross vehicle weight rating as determined from the vehicle identification number, publications from the manufacturer of the vehicle or any other description or evidence shall be admissible.

(b) Implied-Consent Offense. -- An offense under this section is an implied-consent offense subject to the provisions of G.S. 20-16.2. The provisions of G.S. 20-139.1 shall apply to an offense committed under this section.

(b1) Odor Insufficient. -- The odor of an alcoholic beverage on the breath of the driver is insufficient evidence by itself to prove beyond a reasonable doubt that alcohol was remaining in the driver's body in violation of this section unless the driver was offered an alcohol screening test or chemical analysis and refused to provide all required samples of breath or blood for analysis.

(b2) Alcohol Screening Test. -- Notwithstanding any other provision of law, an alcohol screening test may be administered to a driver suspected of violation of subsection (a) of this section, and the results of an alcohol screening test or the driver's refusal to submit may be

used by a law enforcement officer, a court, or an administrative agency in determining if alcohol was present in the driver's body. No alcohol screening tests are valid under this section unless the device used is one approved by the ~~Commission for Health Services~~ Department of Health and Human Services, and the screening test is conducted in accordance with the applicable regulations of the Commission as to its manner and use.

(c) Punishment. -- Except as otherwise provided in this subsection, a violation of the offense described in subsection (a) of this section is a Class 3 misdemeanor and, notwithstanding G.S. 15A-1340.23, is punishable by a penalty of one hundred dollars (\$ 100.00). A second or subsequent violation of this section is a misdemeanor punishable under G.S. 20-179. This offense is a lesser included offense of impaired driving of a commercial vehicle under G.S. 20-138.2.

(d) Second or Subsequent Conviction Defined. -- A conviction for violating this offense is a second or subsequent conviction if at the time of the current offense the person has a previous conviction under this section, and the previous conviction occurred in the seven years immediately preceding the date of the current offense. This definition of second or subsequent conviction also applies to G.S. 20-17(a)(13) and G.S. 20-17.4(a)(6).

§ 20-138.2B. Operating a school bus, school activity bus, or child care vehicle after consuming alcohol

(a) Offense. -- A person commits the offense of operating a school bus, school activity bus, or child care vehicle after consuming alcohol if the person drives a school bus, school activity bus, or child care vehicle upon any highway, any street, or any public vehicular area ~~within the State~~ while consuming alcohol or while alcohol remains in the person's body.

(b) Implied-Consent Offense. -- An offense under this section is an implied-consent offense subject to the provisions of G.S. 20-16.2. The provisions of G.S. 20-139.1 shall apply to an offense committed under this section.

(b1) Odor Insufficient. -- The odor of an alcoholic beverage on the breath of the driver is insufficient evidence by itself to prove beyond a reasonable doubt that alcohol was remaining in the driver's body in violation of this section unless the driver was offered an alcohol screening test or chemical analysis and refused to provide all required samples of breath or blood for analysis.

(b2) Alcohol Screening Test. -- Notwithstanding any other provision of law, an alcohol screening test may be administered to a driver suspected of violation of subsection (a) of this section, and the results of an alcohol screening test or the driver's refusal to submit may be used by a law enforcement officer, a court, or an administrative agency in determining if alcohol was present in the driver's body. No alcohol screening tests are valid under this section unless the device used is one approved by the ~~Commission for Health Services~~ Department of Health and Human Services, and the screening test is conducted in accordance with the applicable regulations of the Commission as to its manner and use.

(c) Punishment. -- Except as otherwise provided in this subsection, a violation of the offense

described in subsection (a) of this section is a Class 3 misdemeanor and, notwithstanding G.S. 15A-1340.23, is punishable by a penalty of one hundred dollars (\$ 100.00). A second or subsequent violation of this section is a misdemeanor punishable under G.S. 20-179. This offense is a lesser included offense of impaired driving of a commercial vehicle under G.S. 20-138.1.

(d) Second or Subsequent Conviction Defined. -- A conviction for violating this offense is a second or subsequent conviction if at the time of the current offense the person has a previous conviction under this section, and the previous conviction occurred in the seven years immediately preceding the date of the current offense. This definition of second or subsequent conviction also applies to G.S. 20-19(c2).

§ 20-138.3. Driving by person less than 21 years old after consuming alcohol or drugs

(a) Offense. -- It is unlawful for a person less than 21 years old to drive a motor vehicle on a highway or public vehicular area while consuming alcohol or at any time while he has remaining in his body any alcohol or controlled substance previously consumed, but a person less than 21 years old does not violate this section if he drives with a controlled substance in his body which was lawfully obtained and taken in therapeutically appropriate amounts.

(b) Subject to Implied-Consent Law. -- An offense under this section is an implied-consent offense subject to the provisions of G.S. 20-16.2. The provisions of G.S. 20-139.1 shall apply to an offense committed under this section.

(b1) Odor Insufficient. -- The odor of an alcoholic beverage on the breath of the driver is insufficient evidence by itself to prove beyond a reasonable doubt that alcohol was remaining in the driver's body in violation of this section unless the driver was offered an alcohol screening test or chemical analysis and refused to provide all required samples of breath or blood for analysis.

(b2) Alcohol Screening Test. -- Notwithstanding any other provision of law, an alcohol screening test may be administered to a driver suspected of violation of subsection (a) of this section, and the results of an alcohol screening test or the driver's refusal to submit may be used by a law enforcement officer, a court, or an administrative agency in determining if alcohol was present in the driver's body. No alcohol screening tests are valid under this section unless the device used is one approved by the ~~Commission for Health Services~~ Department of Health and Human Services, and the screening test is conducted in accordance with the applicable regulations of the ~~Commission~~ Department as to its manner and use.

[Recommendation 7, 29, Adjudication](c) Punishment; Effect When Impaired Driving Offense Also Charged. -- The offense in this section ~~is a Class 2 misdemeanor shall be punished pursuant G.S. 20-179.~~ It is not, in any circumstances, a lesser included offense of impaired driving under G.S. 20-138.1, but if a person is convicted under this section and of an offense involving impaired driving arising out of the same transaction, the aggregate punishment imposed by the court may not exceed the maximum applicable to the offense involving impaired driving, and any minimum punishment applicable shall be imposed.

Notwithstanding any other provision of law whenever any person who does not have any pending charges for violating Chapters 18B, 20 or 90 of the General Statutes and has not previously been convicted of violating this section, an offense involving impaired driving or under any statute of the United States or any state relating to those substances included in Article 5 or 5A of Chapter 90 or to that paraphernalia included in Article 5B of Chapter 90 or a violation of Chapter 18B, pleads guilty to or is found guilty of a violation of this section, the court may, without entering a judgment of guilt and with the consent of such person, defer further proceedings and place him on probation for a minimum of one year upon such reasonable terms and conditions as it may require. Notwithstanding the provisions of G.S. 15A-1342(c) or any other statute or law, to fulfill the terms and conditions of probation the court shall impose, at a minimum, the following conditions:

- (1) the person obtain a substance abuse assessment Within 30 days, and comply with education or treatment requirements recommended by the assessment;
- (2) Not operate a motor vehicle for at least 90 days;
- (3) Perform 50 hours of community service and pay the community service fee;
- (4) Submit at reasonable times to warrantless searches by a probation officer of his or her person, vehicle and premises including drug and alcohol screening and testing and pay the costs of such screening and tests;
- (5) Not possess or consume any alcoholic beverage or controlled substance unless the controlled substance is lawfully prescribed to the person;
- (6) Pay court costs and all fees;
- (7) Not violate any law of this or any other state or the federal government;
- (8) Remain gainfully employed or in school as a full time student as determined by the probation officer; and
- (9) Any other reasonable condition of probation.

Upon violation of a term or condition, the court may enter an adjudication of guilt and proceed as otherwise provided. Upon fulfillment of the terms and conditions, the court shall discharge such person and dismiss the proceedings against him. Discharge and dismissal under this section shall be without court adjudication of guilt and shall not be deemed a conviction for purposes of this section or for purposes of disqualifications or disabilities imposed by law upon conviction of a crime including the additional penalties imposed for second or subsequent convictions. Prior entering a discharge and dismissal, the court shall determine if the person has been charged with or convicted of any other offense, including infractions. The discharge and dismissal shall not be entered unless the court finds that the person does not have any pending charges for violating any law of this State and has not during the period of probation violated a law of this State or has been convicted of violating a provision of Chapter 18B, 20, 14 or 90 of the General Statutes of this State or a substantially similar provision of any other state or the federal government.

(d) Limited Driving Privilege. -- A person who is convicted of violating subsection (a) of this

section and whose drivers license is revoked solely based on that conviction and if the person is otherwise eligible may apply for a limited driving privilege as provided in G.S. 20-179.3 20-11.1[**Recommendation 1 integrated solutions**]. ~~This subsection shall apply only if the person meets both of the following requirements:~~

- ~~—(1) Is 18, 19, or 20 years old on the date of the offense.~~
- ~~—(2) Has not previously been convicted of a violation of this section.~~

~~The judge may issue the limited driving privilege only if the person meets the eligibility requirements of G.S. 20-179.3, other than the requirement in G.S. 20-179.3(b) (1)c. G.S. 20-179.3(e) shall not apply. All other terms, conditions, and restrictions provided for in G.S. 20-179.3 shall apply. G.S. 20-179.3, rather than this subsection, governs the issuance of a limited driving privilege to a person who is convicted of violating subsection (a) of this section and of driving while impaired as a result of the same transaction.~~

§ 20-138.5. Habitual impaired driving

(a) A person commits the offense of habitual impaired driving if he drives while impaired as defined in G.S. 20-138.1 and has been convicted of three or more offenses involving impaired driving as defined in G.S. 20-4.01(24a) within ~~seven~~ 10 years [**Recommendation 9 37, Adjudication**] of the date of this offense.

(b) A person convicted of violating this section shall be punished as a Class F felon and shall be sentenced to a minimum active term of not less than 12 months of imprisonment, which shall not be suspended. Sentences imposed under this subsection shall run consecutively with and shall commence at the expiration of any sentence being served.

(c) An offense under this section is an implied consent offense subject to the provisions of G.S. 20-16.2. The provisions of G.S. 20-139.1 shall apply to an offense committed under this section.

Appendix K

IMPLIED CONSENT LAW SHOULD BE CLARIFIED AND SIMPLIFIED.

- a. Clarify Implied Consent Rights
- b. Allow charging officer or chemical analysis to request test
- c. Appeal to superior court from DMV will be on the record & not de novo
- d. transfer limited privilege from Court to DMV
- e. Delete pre-arrest test – only 25 request each year

§ 20-16.2. Implied consent to chemical analysis; mandatory revocation of license in event of refusal; ~~right of driver to request analysis~~

(a) Basis for Charging Officer to Require Chemical Analysis; Notification of Rights. -- Any person who drives a vehicle on a highway or public vehicular area thereby gives consent to a chemical analysis if charged with an implied-consent offense. ~~The charging officer shall designate the type of chemical analysis to be administered, and it may be administered when the officer~~ Any law enforcement officer who has reasonable grounds to believe that the person charged has committed the implied-consent offense is authorized to obtain a chemical analysis of the person.

~~Except as provided in this subsection or subsection (b), before~~ Before any type of chemical analysis is administered the person charged shall be taken before a chemical analyst authorized to administer a test of a person's breath or a law enforcement officer who is authorized to administer chemical analysis of the breath, who shall inform the person orally and also give the person a notice in writing that:

(1) ~~The person has a right to refuse to be tested~~ You have been charged with an implied consent offense. Under the implied consent law you can refuse any test but your drivers license will be revoked for at least one year and **you will be required to install an ignition interlock on your vehicle [Recommendations 5 & 6 6 & 7 Integrated Solutions],** plus an officer can compel you to be tested under other laws.

(2) ~~Refusal Your refusal to take any required test or tests will result in an immediate revocation of your the person's driving privilege for at least 30 days and an additional 12-months revocation by the Division of Motor Vehicles.~~

(32) ~~The test results, or the fact of the person's your refusal, will be admissible in evidence at trial on the offense charged.~~

(43) ~~The person's~~ Your driving privilege will be revoked immediately for at least 30 days and **until your trial and any appeals [Recommendations 5 & 6 6 & 7, Integrated Solutions]** if you refuse any test or the test result is a 0.08 or more, 0.04 if you were driving a commercial motor vehicle, or 0.01 or more if you are under age 21.:

- a. ~~The test reveals an alcohol concentration of 0.08 or more;~~

~~—b. The person was driving a commercial motor vehicle and the test reveals an alcohol concentration of 0.04 or more; or~~

~~—c. The person is under 21 years of age and the test reveals any alcohol concentration.~~

~~(54) The person may choose a qualified person to administer a chemical test or tests in addition to any test administered at the direction of the charging officer. After you are released, you may seek your own test in addition to this test;~~

~~(65) The person has the right to~~ You may call an attorney for advice and select a witness to view for him or her the testing procedures remaining after the witness arrives, but the testing may not be delayed for these purposes longer than 30 minutes from the time ~~when the person is notified of his or her of these rights.~~ You must take the test at the end of the 30 minutes even if you have not contacted an attorney or your witness has not arrived.

~~If the charging officer or an arresting officer is authorized to administer a chemical analysis of a person's breath, the charging officer or the arresting officer may give the person charged the oral and written any law enforcement officer who is chemical analyst and any chemical analyst is authorized to notice of rights required by this subsection. This authority applies regardless of the type of chemical analysis designated.~~

(a1) Meaning of Terms. -- Under this section, an "implied-consent offense" is an offense involving impaired driving or an alcohol-related offense made subject to the procedures of this section. A person is "charged" with an offense if the person is arrested for it or if criminal process for the offense has been issued. ~~A "charging officer" is a law enforcement officer who arrests the person charged, lodges the charge, or assists the officer who arrested the person or lodged the charge by assuming custody of the person to make the request required by subsection (c) and, if necessary, to present the person to a judicial official for an initial appearance.~~

(b) Unconscious Person May Be Tested. -- If a ~~charging~~ law enforcement officer has reasonable grounds to believe that a person has committed an implied-consent offense, and the person is unconscious or otherwise in a condition that makes the person incapable of refusal, the ~~charging~~ law enforcement officer may direct the taking of a blood sample ~~by a person qualified under G.S. 20-139.4~~ or may direct the administration of any other chemical analysis that may be effectively performed. In this instance the notification of rights set out in subsection (a) and the request required by subsection (c) are not necessary.

(c) Request to Submit to Chemical Analysis. -- ~~The charging~~ A law enforcement officer or chemical analyst, in the presence of the chemical analyst who has notified the person of his or her rights under subsection (a), must designate the type of test or tests to be given and either may request the person charged to submit to the type of chemical analysis designated. If the person charged ~~willfully~~ refuses to submit to that chemical analysis, none may be given under the provisions of this section, but the refusal does not preclude testing under other applicable procedures of law.

(c1) Procedure for Reporting Results and Refusal to Division. -- Whenever a person refuses to submit to a chemical analysis or a person's drivers license has an alcohol concentration restriction and the results of the chemical analysis establish a violation of the restriction, the ~~charging~~ officer and the chemical analyst must without unnecessary delay go before an official authorized to administer oaths and execute an affidavit(s) stating that:

(1) The person was charged with an implied-consent offense or had an alcohol concentration restriction on the drivers license;

(2) ~~The charging officer~~ A law enforcement officer had reasonable grounds to believe that the person had committed an implied-consent offense or violated the alcohol concentration restriction on the drivers license;

(3) Whether the implied-consent offense charged involved death or critical injury to another person, if the person willfully refused to submit to chemical analysis;

(4) The person was notified of the rights in subsection (a); and

(5) The results of any tests given or that the person willfully refused to submit to a chemical analysis ~~upon the request of the charging officer.~~

If the person's drivers license has an alcohol concentration restriction, pursuant to G.S. 20-19(c3), and an officer has reasonable grounds to believe the person has violated a provision of that restriction other than violation of the alcohol concentration level, the ~~charging~~ officer and chemical analyst shall complete the applicable sections of the affidavit and indicate the restriction which was violated. The ~~charging~~ officer must immediately mail the affidavit(s) to the Division. If the ~~charging~~ officer is also the chemical analyst who has notified the person of the rights under subsection (a), the ~~charging~~ officer may perform alone the duties of this subsection.

(d) Consequences of Refusal; Right to Hearing before Division; Issues. -- Upon receipt of a properly executed affidavit required by subsection (c1), the Division must expeditiously notify the person charged that the person's license to drive is revoked for 12 months, effective on the tenth calendar day after the mailing of the revocation order unless, before the effective date of the order, the person requests in writing a hearing before the Division. Except for the time referred to in G.S. 20-16.5, if the person shows to the satisfaction of the Division that his or her license was surrendered to the court, and remained in the court's possession, then the Division shall credit the amount of time for which the license was in the possession of the court against the 12-month revocation period required by this subsection. If the person properly requests a hearing, the person retains his or her license, unless it is revoked under some other provision of law, until the hearing is held, the person withdraws the request, or the person fails to appear at a scheduled hearing. The hearing officer may subpoena any witnesses or documents that the hearing officer deems necessary. The person may request the hearing officer to subpoena the charging officer, the chemical analyst, or both to appear at the hearing if the person makes the request in writing at least three days before the hearing. The person

may subpoena any other witness whom the person deems necessary, and the provisions of G.S. 1A-1, Rule 45, apply to the issuance and service of all subpoenas issued under the authority of this section. The hearing officer is authorized to administer oaths to witnesses appearing at the hearing. The hearing must be conducted in the county where the charge was brought, and must be limited to consideration of whether:

(1) The person was charged with an implied-consent offense or the driver had an alcohol concentration restriction on the drivers license pursuant to G.S. 20-19;

(2) ~~The charging officer~~ A law enforcement officer had reasonable grounds to believe that the person had committed an implied-consent offense or violated the alcohol concentration restriction on the drivers license;

(3) The implied-consent offense charged involved death or critical injury to another person, if this allegation is in the affidavit;

(4) The person was notified of the person's rights as required by subsection (a); and

(5) The person willfully refused to submit to a chemical analysis ~~upon the request of the charging officer.~~

If the Division finds that the conditions specified in this subsection are met, it must order the revocation sustained. If the Division finds that any of the conditions (1), (2), (4), or (5) is not met, it must rescind the revocation. If it finds that condition (3) is alleged in the affidavit but is not met, it must order the revocation sustained if that is the only condition that is not met; in this instance subsection (d1) does not apply to that revocation. If the revocation is sustained, the person must surrender his or her license immediately upon notification by the Division.

(d1) Consequences of Refusal in Case Involving Death or Critical Injury. -- If the refusal occurred in a case involving death or critical injury to another person, no limited driving privilege may be issued. The 12-month revocation begins only after all other periods of revocation have terminated unless the person's license is revoked under G.S. 20-28, 20-28.1, 20-19(d), or 20-19(e). If the revocation is based on those sections, the revocation under this subsection begins at the time and in the manner specified in subsection (d) for revocations under this section. However, the person's eligibility for a hearing to determine if the revocation under those sections should be rescinded is postponed for one year from the date on which the person would otherwise have been eligible for such a hearing. If the person's ~~driver's~~ license is again revoked while the 12-month revocation under this subsection is in effect, that revocation, whether imposed by a court or by the Division, may only take effect after the period of revocation under this subsection has terminated.

(e) Right to Hearing in Superior Court. -- If the revocation for a willful refusal is sustained after the hearing, the person whose license has been revoked has the right to file a petition in the superior court for a hearing on the record de novo upon the issues listed in subsection (d), ~~in the same manner and under the same conditions as provided in G.S. 20-25 except that the de novo hearing is conducted in the superior court district or set of districts as defined in G.S.~~

7A-41.1 where the charge was made. The superior court review shall be limited to whether there is sufficient evidence in the record to support the Commissioner's findings of fact and whether the conclusions of law are supported by the findings of fact and whether the Commissioner committed an error of law in revoking the license.

(e1) Limited Driving Privilege after Six Months in Certain Instances. -- A person whose driver's license has been revoked under this section may apply for and the Division a judge authorized to do so by this subsection may issue a limited driving privilege pursuant to G.S. 20-11.1 **[Recommendation 1, Integrated solutions]** if:

~~—(1) At the time of the refusal the person held either a valid drivers license or a license that had been expired for less than one year;~~

~~—(2) At the time of the refusal, the person had not within the preceding seven years been convicted of an offense involving impaired driving;~~

~~—(3) At the time of the refusal, the person had not in the preceding seven years willfully refused to submit to a chemical analysis under this section;~~

~~—(4) The implied consent offense charged did not involve death or critical injury to another person;~~

~~—(5) The underlying charge for which the defendant was requested to submit to a chemical analysis has been finally disposed of:~~

~~—a. Other than by conviction; or~~

~~—b. By a conviction of impaired driving under G.S. 20-138.1, at a punishment level authorizing issuance of a limited driving privilege under G.S. 20-179.3(b), and the defendant has complied with at least one of the mandatory conditions of probation listed for the punishment level under which the defendant was sentenced;~~

~~—(6) Subsequent to the refusal the person has had no unresolved pending charges for or additional convictions of an offense involving impaired driving;~~

~~—(7) The person's license has been revoked for at least six months for the refusal; and~~

~~—(8) The person has obtained a substance abuse assessment from a mental health facility and successfully completed any recommended training or treatment program.~~

~~Except as modified in this subsection, the provisions of G.S. 20-179.3 relating to the procedure for application and conduct of the hearing and the restrictions required or authorized to be included in the limited driving privilege apply to applications under this subsection. If the case was finally disposed of in the district court, the hearing shall be conducted in the district court district as defined in G.S. 7A-133 in which the refusal occurred by a district court judge. If the case was finally disposed of in the superior court, the hearing~~

~~shall be conducted in the superior court district or set of districts as defined in G.S. 7A-41.1 in which the refusal occurred by a superior court judge. A limited driving privilege issued under this section authorizes a person to drive if the person's license is revoked solely under this section or solely under this section and G.S. 20-17(2). If the person's license is revoked for any other reason, the limited driving privilege is invalid.~~

(f) Notice to Other States as to Nonresidents. -- When it has been finally determined under the procedures of this section that a nonresident's privilege to drive a motor vehicle in this State has been revoked, the Division must give information in writing of the action taken to the motor vehicle administrator of the state of the person's residence and of any state in which the person has a license.

(g) Repealed by Session Laws 1973, c. 914.

(h) Repealed by Session Laws 1979, c. 423, s. 2.

~~(i) Right to Chemical Analysis before Arrest or Charge.—A person stopped or questioned by a law enforcement officer who is investigating whether the person may have committed an implied consent offense may request the administration of a chemical analysis before any arrest or other charge is made for the offense. Upon this request, the officer shall afford the person the opportunity to have a chemical analysis of his or her breath, if available, in accordance with the procedures required by G.S. 20-139.1(b). The request constitutes the person's consent to be transported by the law enforcement officer to the place where the chemical analysis is to be administered. Before the chemical analysis is made, the person shall confirm the request in writing and shall be notified:~~

~~—(1) That the test results will be admissible in evidence and may be used against the person in any implied consent offense that may arise;~~

~~—(2) That the person's license will be revoked for at least 30 days if:~~

~~—a. The test reveals an alcohol concentration of 0.08 or more; or~~

~~—b. The person was driving a commercial motor vehicle and the test results reveal an alcohol concentration of 0.04 or more; or~~

~~—c. The person is under 21 years of age and the test reveals any alcohol concentration.~~

~~—(3) That if the person fails to comply fully with the test procedures, the officer may charge the person with any offense for which the officer has probable cause, and if the person is charged with an implied consent offense, the person's refusal to submit to the testing required as a result of that charge would result in revocation of the person's driver's license. The results of the chemical analysis are admissible in evidence in any proceeding in which they are relevant.~~

Appendix L

ADMISSIBILITY PROTOCOL OF CHEMICAL ANALYSES SHOULD BE CLARIFIED AND SIMPLIFIED

- a. preapproved access to Intoxilyzer room and posting of rights forms, [**Appendix 4 Appendix E**];
- b. results of chemical analysis sufficient to prove alcohol concentration;
- c. specify requirements for results breath test to be admissible;
- d. require court to take judicial notice of DHHS permit records & rules;
- e. assign authority to make rules to DHHS & not Commission for Health Services;
- f. clarify that any law enforcement officer that is chemical analyst can run test (b1);
- g. require court to take judicial notice of DHHS preventive maintenance (b2);
- h. allow all test results to be admitted but only lower of two consecutive test results within 0.02 can be used to prove 0.08 (b3);
- i. require DHHS to post records on internet and file with clerk;
- j. clarify that doctor, nurse, EMT can withdraw blood or obtain urine at request of officer – nurse or EMT does not require permission of doctor -- (c);
- k. allow SBI to report results electronically using the same kind of report use to analyze drugs, GS 90-95(g) --(c1);
- l. allow chain of custody to be proved by report just like drug cases --(c2);
- m. simplify requirements to admit blood test-- (c3);
- n. clarify the procedure for defendant of obtain additional test of his own – (d);
- o. clarify that officer can obtain a blood or urine test, with or without court order, if driver refuses implied consent test --(d1);
- p. clarify procedure for defendant to obtain a copy of breath test results if not given one on the night of the test – (e);
- q. clarify that the defendant cannot subpoena the chemical analyst when there is an affidavit unless he convinces the judge there is some legitimate reason – (e1);
- r. Include in evidence of refusal the defendant's refusal to do field sobriety tests and clarify that the refusal is admitted as evidence of the driver's impairment – (f);
- s. Specify that a violation of the Chapter 20 or Chapter 15A does not allow for suppression of the results unless the violation is willful and the resulted in a constitutional violation of the defendant's Constitutional rights;

§ 20-139.1. Procedures governing chemical analyses; admissibility; evidentiary provisions; controlled-drinking programs

(a) Chemical Analysis Admissible. -- In any implied-consent offense under G.S. 20-16.2, a person's alcohol concentration or the presence of any other impairing substance in the person's body as shown by a chemical analysis is admissible in evidence. This section does not limit the introduction of other competent evidence as to a person's alcohol concentration or results

of other tests showing the presence of an impairing substance, including other chemical tests.

(b) Approval of Valid Test Methods; Licensing Chemical Analysts. – A The results of a chemical analysis, shall be deemed sufficient evidence to prove a person's alcohol concentration. A chemical analysis of the breath administered pursuant to the implied consent law is admissible in any court or administrative agency if:
to be valid, shall be

- (1) performed in accordance with the rules of the Department of Health and Human Services; and the provisions of this section. The chemical analysis shall be performed according to methods approved by the Commission for Health Services by an individual possessing
- (2) the person performing the analysis had at the time of the analysis a current permit issued by the Department of Health and Human Services authorizing the person to perform a test of the breath using the type of instrument employed for that type of chemical analysis.

For purposes of establishing compliance with subsection (b)(1) the court or administrative agency shall take notice of the rules of the Department of Health and Human Services. For purposes of establishing compliance with subsection (b)(2), the court or administrative agency shall take judicial notice of the list of person's possession permits, the type of instrument each person is authorized to perform tests of the breath and the date the permit was issued.

The Commission for Health Services may adopt rules approving satisfactory methods or techniques for performing chemical analyses, and the Department of Health and Human Services may ascertain the qualifications and competence of individuals to conduct particular chemical analyses and the methods for conducting chemical analyses. The Department may issue permits to conduct chemical analyses to individuals it finds qualified subject to periodic renewal, termination, and revocation of the permit in the Department's discretion.

(b1) When Officer May Perform Chemical Analysis. – Any person possessing a current permit authorizing the person to perform chemical analysis may perform a chemical analysis. Except as provided in this subsection, a chemical analysis is not valid in any case in which it is performed by an arresting officer or by a charging officer under the terms of G.S. 20-16.2. A chemical analysis of the breath may be performed by an arresting officer or by a charging officer when both of the following apply:

—(1) The officer possesses a current permit issued by the Department of Health and Human Services for the type of chemical analysis.

—(2) The officer performs the chemical analysis by using an automated instrument that prints the results of the analysis.

(b2) Breath Analysis Results Inadmissible if Preventive Maintenance Not Performed. – The Department of Health and Human Services shall perform preventive maintenance on breath testing instruments used for chemical analysis. A court or administrative agency shall take judicial notice of the preventive maintenance records of the Department. Notwithstanding the provisions of subsection (b), the results of a chemical analysis of a person's breath performed

in accordance with this section are not admissible in evidence if:

(1) The defendant objects to the introduction into evidence of the results of the chemical analysis of the defendant's breath; and

(2) The defendant demonstrates that, with respect to the instrument used to analyze the defendant's breath, preventive maintenance procedures required by the regulations of the ~~Commission for~~ Department of Health and Human Services had not been performed within the time limits prescribed by those regulations.

(b3) Sequential Breath Tests Required. -- ~~By January 1, 1985, the regulations of the Commission for Health Services~~ The methods governing the administration of chemical analyses of the breath shall require the testing of at least duplicate sequential breath samples. The results of the chemical analysis of all breath samples are admissible if the test results from any two consecutively collected breath samples do not differ from each other by an alcohol concentration greater than 0.02. Only the lower of the two test results of the consecutively administered test can be used to prove a particular alcohol concentration. Those methods regulations must provide:

~~—(1) A specification as to the minimum observation period before collection of the first breath sample and the time requirements as to collection of second and subsequent samples.~~

~~—(2) That the test results may only be used to prove a person's particular alcohol concentration if:~~

~~—a. The pair of readings employed are from consecutively administered tests; and~~

~~—b. The readings do not differ from each other by an alcohol concentration greater than 0.02.~~

~~—(3) That when a pair of analyses meets the requirements of subdivision (2), only the lower of the two readings may be used by the State as proof of a person's alcohol concentration in any court or administrative proceeding.~~

A person's refusal to give the sequential breath samples necessary to constitute a valid chemical analysis is a refusal under G.S. 20-16.2(c).

A person's refusal to give the second or subsequent breath sample shall make the result of the first breath sample, or the result of the sample providing the lowest alcohol concentration if more than one breath sample is provided, admissible in any judicial or administrative hearing for any relevant purpose, including the establishment that a person had a particular alcohol concentration for conviction of an offense involving impaired driving.

~~(b4) Introducing Routine Records Kept as Part of Breath-Testing Program. — In civil and criminal proceedings, any party may introduce, without further authentication, simulator logs and logs for other devices used to verify a breath-testing instrument, certificates and other~~

~~records concerning the check of ampoules and of simulator stock solution and the stock solution used in any other equilibration device, preventive maintenance records, and other records that are routinely kept concerning the maintenance and operation of breath testing instruments. In a criminal case, however, this subsection does not authorize the State to introduce records to prove the results of a chemical analysis of the defendant or of any validation test of the instrument that is conducted during that chemical analysis.~~

(b5) Subsequent Tests Allowed. -- A person may be requested, pursuant to G.S. 20-16.2, to submit to a chemical analysis of the person's blood or other bodily fluid or substance in addition to or in lieu of a chemical analysis of the breath, in the discretion of ~~the charging a~~ law enforcement officer. If a subsequent chemical analysis is requested pursuant to this subsection, the person shall again be advised of the implied consent rights in accordance with G.S. 20-16.2(a). A person's willful refusal to submit to a chemical analysis of the blood or other bodily fluid or substance is a willful refusal under G.S. 20-16.2.

(b6) The Department of Health and Human Services shall post on a webpage and file in each county a list of all persons who have a permit to authorizing them to perform chemical analyses, the type of analyzes that they can perform, the instruments that each person is authorized to operate and the effective dates of the permits, and records of preventive maintenance. A court shall take judicial notice of whether at the time of the chemical analysis, the chemical analyst possessed a permit authorizing the chemical analyst to perform a chemical analysis administered and whether preventive maintenance had been performed on the a breath testing instrument in accordance with Department rule.

(c) ~~Withdrawal of Blood and Urine for Chemical Analysis. -- Notwithstanding any other provision of law, When when a blood or urine test is specified as the a type of chemical analysis by the charging officer a law enforcement officer, only a physician, registered nurse, emergency medical technician or other qualified person may shall withdraw the blood and obtain the urine sample and no further authorization or approval is required.~~ If the person withdrawing the blood or collecting the urine requests written confirmation of the charging officer's request for the withdrawal of blood or obtaining urine, the officer shall furnish it before blood is withdrawn or urine obtained. When blood is withdrawn or urine collected pursuant to a law enforcement charging officer's request, neither the person withdrawing the blood nor any hospital, laboratory, or other institution, person, firm, or corporation employing that person, or contracting for the service of withdrawing blood, may be held criminally or civilly liable by reason of withdrawing that blood, except that there is no immunity from liability for negligent acts or omissions.

~~The chemical analyst who analyzes the blood shall complete an affidavit stating the results of the analysis on a form developed by the Department of Health and Human Services and provide the affidavit to the charging officer, and the clerk of superior court in the county in which the criminal charges are pending.~~

(c1) Whenever blood or urine is submitted to the North Carolina State Bureau of Investigation Laboratory, the Charlotte, North Carolina, Police Department Laboratory or any other laboratory approved for chemical analysis by the Department of Health and Human Service to

determine if the blood or urine contains alcohol or a controlled substance or its metabolites or any other impairing substance, the report of that analysis certified to upon a form approved by the Attorney General by the person performing the analysis shall be admissible without further authentication in all administrative hearings and proceedings in the district court and superior court divisions of the General Court of Justice as evidence of that the blood or urine contained alcohol, controlled substance or its metabolite or other impairing substance as well as the quantity of the alcohol, controlled substance, metabolite of a controlled substance or other impairing substance. Provided, however, that a report is admissible in a criminal proceeding in the superior court division or in an adjudicatory hearing in juvenile court in the district court division only if the defendant fails to notify the State at least five days before trial that the defendant objects to the introduction of the report into evidence.

The report containing the results of any blood or urine test may be transmitted electronically or via facsimile. A copy of the affidavit sent electronically or via facsimile shall be admissible in any court or administrative hearing without further authentication. A copy of the report shall be sent to the charging officer, the clerk of superior court in the county in which the criminal charges are pending, the Division of Motor Vehicles and the Department of Health and Human Services.

Nothing in this subsection precludes the right of any party to call any witness or to introduce any evidence supporting or contradicting the evidence contained in the report.

(c2) Procedure for establishing chain of custody without calling unnecessary witnesses. --

(1) For the purpose of establishing the chain of physical custody or control of blood or urine tested or analyzed to determine whether it contains alcohol, a controlled substance or its metabolite or any impairing substance, a statement signed by each successive person in the chain of custody that the person delivered it to the other person indicated on or about the date stated is prima facie evidence that the person had custody and made the delivery as stated, without the necessity of a personal appearance in court by the person signing the statement.

(2) The statement shall contain a sufficient description of the material or its container so as to distinguish it as the particular item in question and shall state that the material was delivered in essentially the same condition as received. The statement may be placed on the same document as the report provided for in subsection (c1) of this section.

(3) The provisions of this subsection may be utilized in any administrative hearing and by the State in district court but can only be utilized in a case originally tried in superior court or an adjudicatory hearing in juvenile court, if the defendant fails to notify the State at least five days before trial that the defendant objects to the introduction of the statement into evidence.

(4) Nothing in this subsection precludes the right of any party to call any witness or to introduce any evidence supporting or contradicting the evidence contained in the statement.

(c3) The results of a blood or urine test are admissible to prove a person's alcohol concentration or the presence of controlled substances or metabolites or any other impairing substance if:

(1) a law enforcement officer or chemical analyst requested a blood and/or urine sample from the person charged; and

(2) a chemical analysis of the person's blood was performed by a chemical analyst possessing a permit issued by the Department of Health and Human Services authorizing the chemical analyst to analyze blood or urine for alcohol or controlled substances, metabolites of a controlled substance or any other impairing substance.

For purposes of establishing compliance with subsection (c)(2), the court or administrative agency shall take judicial notice of the list of person's possessing permits, the type of instrument each person is authorized to perform tests of the blood and/or urine and the date the permit was issued and the date it expires.

~~Evidence regarding the qualifications of the person who withdrew the blood sample may be provided at trial by testimony of the charging officer or by an affidavit of the person who withdrew the blood sample and shall be sufficient to constitute prima facie evidence regarding the person's qualifications.~~

(d) Right to Additional Test. –Nothing in this section shall be construed to prohibit a person from obtaining or attempting to obtain an additional chemical analysis. If the person is not released from custody after the initial appearance, the agency having custody of the person shall allow the person access to a telephone to attempt to arrange for any additional test and allow access to the person in accordance with the agreed procedure in G.S. 20-38.4. A person who submits to a chemical analysis may have a qualified person of his own choosing administer an additional chemical test or tests, or have a qualified person withdraw a blood sample for later chemical testing by a qualified person of his own choosing. Any law-enforcement officer having in his charge any person who has submitted to a chemical analysis shall assist the person in contacting someone to administer the additional testing or to withdraw blood, and shall allow access to the person for that purpose. The failure or inability of the person who submitted to a chemical analysis to obtain any additional test or to withdraw blood does not preclude the admission of evidence relating to the chemical analysis.

(d1) Right to require additional tests. – If a person refuses to submit to any test or tests pursuant to this section, any law enforcement officer with probable cause may, with or without a court order, compel the person to provide blood and/or urine samples for analysis. Notwithstanding any other provision of law, when a blood or urine sample is requested under this subsection by a law enforcement officer, a physician, registered nurse, emergency medical technician or other qualified person shall withdraw the blood and obtain the urine sample and no further authorization or approval is required. If the person withdrawing the blood or collecting the urine requests written confirmation of the charging officer's request for the withdrawal of blood or obtaining urine, the officer shall furnish it before blood is withdrawn or urine obtained. When blood is withdrawn or urine collected pursuant to a law enforcement officer's request, neither the person withdrawing the blood nor any hospital, laboratory, or other institution, person, firm, or corporation employing that person, or contracting for the service of withdrawing blood, may be held criminally or civilly liable by

reason of withdrawing that blood, except that there is no immunity from liability for negligent acts or omissions. The results of the analysis of blood or urine under this subsection shall be admissible if performed by the State Bureau of Investigation laboratory or any other hospital or qualified laboratory.

(e) Recording Results of Chemical Analysis of Breath. -- ~~The chemical analyst who administers a test of a person's breath shall record the following information after making any chemical analysis:~~

- ~~—(1) The alcohol concentration or concentrations revealed by the chemical analysis.~~
- ~~—(2) The time of the collection of the breath sample or samples used in the chemical analysis.~~

A copy of the record of this information shall be furnished to the person submitting to the chemical analysis, or to his attorney, before any trial or proceeding in which the results of the chemical analysis may be used. A person charged with an implied consent offense who has not received prior to a trial a copy of the chemical analysis results the State intends to offer into evidence prior to trial may request in writing a copy of the results. The failure to provide a copy prior to any trial shall be grounds for a continuance of the case but shall not be grounds to suppress the results of the chemical analysis or to dismiss the criminal charges.

(e1) Use of Chemical Analyst's Affidavit in District Court. -- An affidavit by a chemical analyst sworn to and properly executed before an official authorized to administer oaths is admissible in evidence without further authentication in any hearing or trial in the District Court Division of the General Court of Justice with respect to the following matters:

- (1) The alcohol concentration or concentrations or the presence or absence of an impairing substance of a person given a chemical analysis and who is involved in the hearing or trial.
- (2) The time of the collection of the blood, breath, or other bodily fluid or substance sample or samples for the chemical analysis.
- (3) The type of chemical analysis administered and the procedures followed.
- (4) The type and status of any permit issued by the Department of Health and Human Services that the analyst held on the date the analyst performed the chemical analysis in question.
- (5) If the chemical analysis is performed on a breath-testing instrument for which regulations adopted pursuant to subsection (b) require preventive maintenance, the date the most recent preventive maintenance procedures were performed on the breath-testing instrument used, as shown on the maintenance records for that instrument.

The Department of Health and Human Services shall develop a form for use by chemical analysts in making this affidavit. If any person who submitted to a chemical analysis desires that a chemical analyst personally testify in the hearing or trial in the District Court Division,

the person may subpoena the chemical analyst and examine him as if he were an adverse witness. A subpoena for a chemical analyst shall not be issued unless the person files in writing with the court and serves a copy on the district attorney at least five days prior to trial an affidavit specifying the specific factual grounds that the person believes the chemical analysis was not properly administered and the facts that the chemical analyst will testify about and stating that the presence of the analyst is necessary for the proper defense of the case. The district court shall determine if there are grounds to believe that the presence of the analyst requested is necessary for the proper defense. If so, the case shall be continued until the analyst can be present. The criminal case shall not be dismissed due to the failure of the analyst to appear, unless the analyst willfully fails to appear after being ordered to appear by the court.

(f) Evidence of Refusal Admissible. -- If any person charged with an implied-consent offense refuses to submit to a chemical analysis or to perform field sobriety tests at the request of an officer, evidence of that refusal is admissible in any criminal, civil or administrative action against him the person ~~for an implied-consent offense under G.S. 20-16.2.~~ The fact finder shall consider either type of refusal to be evidence of that the person had consumed sufficient impairing substance to be impaired.

(g) Controlled-Drinking Programs. -- The Department of Health and Human Services may adopt rules concerning the ingestion of controlled amounts of alcohol by individuals submitting to chemical testing as a part of scientific, experimental, educational, or demonstration programs. These regulations shall prescribe procedures consistent with controlling federal law governing the acquisition, transportation, possession, storage, administration, and disposition of alcohol intended for use in the programs. Any person in charge of a controlled-drinking program who acquires alcohol under these regulations must keep records accounting for the disposition of all alcohol acquired, and the records must at all reasonable times be available for inspection upon the request of any federal, State, or local law-enforcement officer with jurisdiction over the laws relating to control of alcohol. A controlled-drinking program exclusively using lawfully purchased alcoholic beverages in places in which they may be lawfully possessed, however, need not comply with the record-keeping requirements of the regulations authorized by this subsection. All acts pursuant to the regulations reasonably done in furtherance of bona fide objectives of a controlled-drinking program authorized by the regulations are lawful notwithstanding the provisions of any other general or local statute, regulation, or ordinance controlling alcohol.

(h) The results of a chemical analysis shall not be suppressed for a violation of this section or G.S.20-16.2. Any violation shall go to the weight to be given to the results and not the admissibility as provided is G.S. 20-38.7 [Recommendation 4; 26, Adjudication, see Appendix 4 Appendix E

Appendix M

IMPROVE ACCESSIBILITY TO MEDICAL RECORDS IN IMPAIRED DRIVING CASES

G.S. 90-21.20B. Access to medical information for law enforcement purposes.

(a) Notwithstanding any other provision of law, if a person is involved in a vehicle crash:

(1) Any health care provider who is providing medical treatment to the person shall, upon request, disclose to any law enforcement officer investigating the crash the following information about the person: name, current location, and whether the person appears to be impaired by alcohol, drugs or another substance.

(2) Law enforcement officers shall be provided access to visit and interview the person upon request, except when the health care provider requests temporary privacy for medical reasons.

(3) A health care provider shall disclose a certified copy of all identifiable health information related to that person as specified in a search warrant or an order issued by a judicial official.

(b) A prosecutor or law enforcement officer receiving identifiable health information under this section shall not disclose this information to others prior to trial except as necessary to the investigation or otherwise allowed by law.

(c) A certified copy of identifiable health information, if relevant, shall be admissible in any hearing or trial without further authentication.

(d) As used in this section, "health care provider" has the same meaning as in G.S. 90-21.11.

This appendix includes drafting suggestions of Aimee Wall, School of Government.

Appendix N

EXPAND REPORTING REQUIREMENTS OF PROSECUTOR WHEN IMPLIED CONSENT CASES ARE DISMISSED

- a. add driving after drinking and DWLR for an impaired driving license revocation to list of offenses that DA must complete written dismissal form;
- b. expand explanation required;
- c. require copy of form to be included in the file and the integrated data system;
- d. require a copy be sent to the police agency involved and the elected district attorney.

§ 20-138.4. Requirement that prosecutor explain reduction or dismissal of charge involving impaired driving

(a) Any prosecutor must enter detailed facts in the record of any case subject to the implied consent law or involving driving while license revoked for an impaired driving license revocation as defined in G.S. 20-28.2 involving impaired driving explaining orally in open court and in writing the reasons for his action if he:

- (1) Enters a voluntary dismissal; or
- (2) Accepts a plea of guilty or no contest to a lesser included offense; or
- (3) Substitutes another charge, by statement of charges or otherwise, if the substitute charge carries a lesser mandatory minimum punishment or is not an offense involving impaired driving; or
- (4) Otherwise takes a discretionary action that effectively dismisses or reduces the original charge in the case involving impaired driving.

(b) The written explanation shall be signed by the prosecutor taking the action on a form approved the Administrative Office of the Courts and shall contain at a minimum, the alcohol concentration or the fact that that the driver refused, a list of all prior convictions of implied consent offenses or driving while license revoked, whether driver had a valid drivers license or privilege to drive in this State as indicated by the Division's records, a statement that a check of the data base of the Administrative Office of the Courts revealed whether there are any other pending charges against the defendant pending in this state, those elements that the prosecutor believe in good faith can be proved and a list of those elements that the prosecutor cannot prove and why, the name and agency of the charging officer and whether the officer is available and any other reason why the charges are dismissed. General explanations such as "interests of justice" or "insufficient evidence" are not sufficiently detailed to meet the requirements of this section.

(c) A copy of this form shall be sent to the head of the law enforcement agency that employed the charging officer, to the elected district attorney who employs the prosecutor and filed in the court file. The Administrative Office of the Courts shall electronically record this data in its data base make it available upon request at no charge.

Appendix O

DWLR AND FAILURE TO APPEAR FOR DWI

- a. clarification of the notification of revocations by DMV;
- b. driving after notification that the driver is revoked for an impaired driving revocation;
- c. failure to appear on an implied consent offense results in a revocation;
- d. for early restoration of a drivers license for an impaired driving revocation, that DMV require assessment, education or treatment and ignition interlock when appropriate.

20-48. Giving of notice.

(a) Whenever the Division is authorized or required to give any notice under this Chapter or other law regulating the operation of vehicles, unless a different method of giving such notice is otherwise expressly prescribed, such notice shall be given either by personal delivery thereof to the person to be so notified or by deposit in the United States mail of such notice in an envelope with postage prepaid, addressed to such person at his address as shown by the records of the Division. The giving of notice by mail is complete upon the expiration of four days after such deposit of such notice. Proof of the giving of notice in either such manner may be made by a notation in the records of the Division that a notice was sent to a particular address and the purposed of the notices. ~~the certificate of any officer or employee of the Division or affidavit of any person over 18 years of age, naming the person to whom such notice was given and specifying the time, place, and manner of the giving thereof.~~ A certified copy of the Division's records may be sent by the Police Information Network, facsimile or other electronic means. A copy of the Division's records sent under the authority of this section is admissible in evidence in any court or administrative agency and is sufficient evidence to discharge the burden of he person presenting the record that notice was sent to the person named in the record, at the address indicated in the record and for the purpose indicated in the record. There is no requirement that the actual notice or letter be produced.

(b) Notwithstanding any other provision of this Chapter at any time notice is now required by registered mail with return receipt requested, certified mail with return receipt requested may be used in lieu thereof and shall constitute valid notice to the same extent and degree as notice by registered mail with return receipt requested.

(c) The Commissioner shall appoint such agents of the Division as may be needed to serve revocation notices required by this Chapter. The fee for service of a notice shall be fifty dollars (\$50.00).

§ 20-28. Unlawful to drive while license revoked, after notification, or while disqualified.

(a) Driving While License Revoked. - Except as provided in subsection (a1) of this section, any person whose drivers license has been revoked who drives any motor vehicle upon the highways of the State while the license is revoked is guilty of a Class 1 misdemeanor. Upon conviction, the person's license shall be revoked for an additional period of one year for the first offense, two years for the second offense, and permanently

for a third or subsequent offense. The restoree of a revoked drivers license who operates a motor vehicle upon the highways of the State without maintaining financial responsibility as provided by law shall be punished as for driving without a license.

(a1) Driving Without Reclaiming License. - A person convicted under subsection (a) shall be punished as if the person had been convicted of driving without a license under G.S. 20-35 if the person demonstrates to the court that either subdivisions (1) and (2), or subdivision (3) of this subsection is true:

- (1) At the time of the offense, the person's license was revoked solely under G.S. 20-16.5; and
- (2)
 - a. The offense occurred more than 45 days after the effective date of a revocation order issued under G.S. 20-16.5(f) and the period of revocation was 45 days as provided under subdivision (3) of that subsection; or
 - b. The offense occurred more than 30 days after the effective date of the revocation order issued under any other provision of G.S. 20-16.5; or
- (3) At the time of the offense the person had met the requirements of G.S. 50-13.12, or G.S. 110-142.2 and was eligible for reinstatement of the person's drivers license privilege as provided therein.

In addition, a person punished under this subsection shall be treated for drivers license and insurance rating purposes as if the person had been convicted of driving without a license under G.S. 20-35, and the conviction report sent to the Division must indicate that the person is to be so treated.

(a2) Driving after notification or failure to appear. A person who drives upon a highway while his license is revoked for an impaired driving license revocation after the Division has sent notification in accordance with G.S. 20-48 or who fails to appear for two years from the date of the charge after being charged with an implied consent offense shall be guilty of a Class 1 misdemeanor. . Upon conviction, the person's license shall be revoked for an additional period of one year for the first offense, two years for the second offense, and permanently for a third or subsequent offense. The restoree of a revoked drivers license who operates a motor vehicle upon the highways of the State without maintaining financial responsibility as provided by law shall be punished as for driving without a license.

(b) Repealed by Session Laws 1993 (Reg. Sess., 1994), c. 761, s. 3.

(c) When Person May Apply for License. - A person whose license has been revoked under this section and for no other reason and the period of revocation is for one year may apply for a license after 90 days. A person whose license has been revoked under this section for two years may apply for a license after 12 months. A person whose license has been revoked under this section permanently may apply for a license after three years. Upon the filing of an application the Division may, with or without a hearing, issue a new license upon satisfactory proof that the former licensee has not been convicted of a moving violation under this Chapter

or the laws of another state, a violation of any provision of the alcoholic beverage laws of this State or another state, or a violation of any provisions of the drug laws of this State or another state when any of these violations occurred during the revocation period. The Division may impose any restrictions or conditions on the new license that the Division considers appropriate for the balance of the revocation period. When the revocation period is permanent, the restrictions and conditions imposed by the Division may not exceed three years. If the person was revoked pursuant to subsection (a1) and the person drove while his license was revoked for an impaired driving revocation or the revocation was for violating subsection (a2), the Division may only conditionally restore the license in accordance with this subsection and shall require at a minimum as a condition of restoration that the driver obtain a substance abuse assessment prior to issuance of a license and show proof of financial responsibility. If the substance abuse assessment recommends education or treatment, the person must complete the education or treatment within the time limits specified. If the assessment determines that the person abuses alcohol, then the Division shall require the person to install and use an ignition interlock on any vehicles that are to be driven. If the person violates any condition of the restoration or is convicted of any moving offense in this or another state or the alcoholic beverage or control substance laws of this or any other state, the Division shall cancelled the conditionally restored license and impose the remaining revocation period. The Division shall also cancel the registration on any vehicles and shall require to driver to surrender all current registration plates and cards.

Appendix P

MODIFY CURRENT PUNISHMENT STATUTE, GS 20-179, TO COMPLY WITH BLAKELY v. WASHINGTON

- a. Provide for a new sentencing hearing upon remand and authorized new sentence for any convictions occurring since the appeal; Blakely v. Washington issue -- jury decides factors in superior court
- b. Raise 7 year restriction on use of prior convictions as a grossly aggravating factor to 10 years **[NOTE: THIS CHANGE ALSO MODIFIES WHO IS ELIGIBLE FOR LIMITED DRIVING PRIVILEGE.]**
- c. delete the optional punishment of “non-operation”;
- d. Provide that a “weekend” requires a minimum of 48 straight hours of incarceration to count toward sentence of 48 hours or more and cannot go to jail if have been drinking See G.S. 20-179(s);
- e. Maintenance of court records on prior convictions;

20-179. Sentencing hearing after conviction for impaired driving; determination of grossly aggravating and aggravating and mitigating factors; punishments.

(a) Sentencing Hearing Required. - After a conviction for impaired driving under G.S. 20-138.1, G.S. 20-138.2, a second or subsequent conviction under G.S. 20-138.2A, or a second or subsequent conviction under G.S. 20-138.2B, 20-138.3 [Recommendation 7, 29, Adjudication] or any of the forgoing offenses are remand back to district court after an appeal to superior court, the judge must hold a sentencing hearing to determine whether there are aggravating or mitigating factors that affect the sentence to be imposed. Before the hearing the prosecutor must make all feasible efforts to secure the defendant's full record of traffic convictions, and must present to the judge that record for consideration in the hearing. Upon request of the defendant, the prosecutor must furnish the defendant or his attorney a copy of the defendant's record of traffic convictions at a reasonable time prior to the introduction of the record into evidence. In addition, the prosecutor must present all other appropriate grossly aggravating and aggravating factors of which he is aware, and the defendant or his attorney may present all appropriate mitigating factors. In every instance in which a valid chemical analysis is made of the defendant, the prosecutor must present evidence of the resulting alcohol concentration.

(a1) Sentencing hearing in Superior Court. Upon a determination of guilt by the jury, the court shall submit to the same jury or a different jury if using the same jury is impracticable, any grossly aggravating or aggravating factors supported by the evidence. Prior to submitting these factors to the jury, the court shall allow the state and the defendant to present evidence to the jury that is relevant to proving any grossly aggravating or aggravating factors that had not been presented to the jury during the guilt phase of the trial. Provided however the court is not required to allow proof of or submit to the jury any grossly aggravating or aggravating factor that is a conviction of a crime or determination of responsibility for an infraction or that is stipulated to by the defendant..

c) Determining Existence of Grossly Aggravating Factors. -

At the sentencing hearing, based upon the evidence presented at trial and in the hearing, the judge must first determine whether there are any grossly aggravating factors in the case. If the sentencing hearing is for a case remanded back to district court from superior court, the judge shall determine whether the defendant has been convicted of any offense that was not considered at the initial sentencing hearing and impose the appropriate sentence under this section. **[Recommendation 4, 26, Adjudication, see Appendix 4-E]** The judge must impose the Level One punishment under subsection (g) of this section if the judge determines that two or more grossly aggravating factors apply. The judge must impose the Level Two punishment under subsection (h) of this section if the judge determines that only one of the grossly aggravating factors applies. The grossly aggravating factors are:

- (1) A prior conviction for an offense involving impaired driving if:
 - a. The conviction occurred within ~~seven~~ 10 years before the date of the offense for which the defendant is being sentenced; or
 - b. The conviction occurs after the date of the offense for which the defendant is presently being sentenced, but prior to or contemporaneously with the present sentencing. Each prior conviction is a separate grossly aggravating factor.
- (2) Driving by the defendant at the time of the offense while his driver's license was revoked under G.S. 20-28, and the revocation was an impaired driving revocation under G.S. 20-28.2(a).
- (3) Serious injury to another person caused by the defendant's impaired driving at the time of the offense.
- (4) Driving by the defendant while a child under the age of 16 years was in the vehicle at the time of the offense.

In imposing a Level One or Two punishment, the judge may consider the aggravating and mitigating factors in subsections (d) and (e) in determining the appropriate sentence. If there are no grossly aggravating factors in the case, the judge must weigh all aggravating and mitigating factors and impose punishment as required by subsection (f).

(d) Aggravating Factors to Be Weighed. - The judge must determine before sentencing under subsection (f) whether any of the aggravating factors listed below apply to the defendant. The judge must weigh the seriousness of each aggravating factor in the light of the particular circumstances of the case. The factors are:

- (1) Gross impairment of the defendant's faculties while driving or an alcohol concentration of 0.16 or more within a relevant time after the driving.
- (2) Especially reckless or dangerous driving.
- (3) Negligent driving that led to a reportable accident.
- (4) Driving by the defendant while his driver's license was revoked.
- (5) Two or more prior convictions of a motor vehicle offense not involving impaired driving for which at least three points are assigned under G.S. 20-16 or for which the convicted person's license is subject to revocation, if the convictions occurred within five years of the date of the offense for which the defendant is being sentenced, or one or more prior convictions of an offense involving impaired driving that occurred more than ~~seven~~ 10 years before the date of the offense for which the defendant is being sentenced.
- (6) Conviction under G.S. 20-141.5 of speeding by the defendant while fleeing or attempting to elude apprehension.

(7) Conviction under G.S. 20-141 of speeding by the defendant by at least 30 miles per hour over the legal limit.

(8) Passing a stopped school bus in violation of G.S. 20-217.

(9) Any other factor that aggravates the seriousness of the offense.

Except for the factor in subdivision (5) the conduct constituting the aggravating factor must occur during the same transaction or occurrence as the impaired driving offense.

(i) Level Three Punishment. - A defendant subject to Level Three punishment may be fined up to one thousand dollars (\$1,000) and shall be sentenced to a term of imprisonment that includes a minimum term of not less than 72 hours and a maximum term of not more than six months. The term of imprisonment may be suspended. However, the suspended sentence shall include the condition that the defendant:

(1) Be imprisoned for a term of at least 72 hours as a condition of special probation; or

(2) Perform community service for a term of at least 72 hours; or

~~(3) Not operate a motor vehicle for a term of at least
90 days; or~~

(3)~~(4)~~ Any combination of these conditions.

If the defendant is placed on probation, the judge shall impose a requirement that the defendant obtain a substance abuse assessment and the education or treatment required by G.S. 20-17.6 for the restoration of a drivers license and as a condition of probation. The judge may impose any other lawful condition of probation.

(j) Level Four Punishment. - A defendant subject to Level Four punishment may be fined up to five hundred dollars (\$500.00) and shall be sentenced to a term of imprisonment that includes a minimum term of not less than 48 hours and a maximum term of not more than 120 days. The term of imprisonment may be suspended. However, the suspended sentence shall include the condition that the defendant:

(1) Be imprisoned for a term of 48 hours as a condition
of special probation; or

(2) Perform community service for a term of 48 hours; or

~~(3) Not operate a motor vehicle for a term of 60 days;~~

(3)~~(4)~~ Any combination of these conditions.

If the defendant is placed on probation, the judge shall impose a requirement that the defendant obtain a substance abuse assessment and the education or treatment required by G.S. 20-17.6 for the restoration of a drivers license and as a condition of probation. The judge may impose any other lawful condition of probation.

(k) Level Five Punishment. - A defendant subject to Level Five punishment may be fined up to two hundred dollars (\$200.00) and shall be sentenced to a term of imprisonment that includes a minimum term of not less than 24 hours and a maximum term of not more than 60 days. The term of imprisonment may be suspended. However, the suspended sentence shall include the condition that the defendant:

(1) Be imprisoned for a term of 24 hours as a condition
of special probation; or

- (2) Perform community service for a term of 24 hours; or
- (3)(4) Any combination of these conditions.

If the defendant is placed on probation, the judge shall impose a requirement that the defendant obtain a substance abuse assessment and the education or treatment required by G.S. 20-17.6 for the restoration of a drivers license and as a condition of probation. The judge may impose any other lawful condition of probation.

WEEKEND JAIL TIME

s) Method of Serving Sentence. - The judge in his discretion may order a term of imprisonment or ~~community service~~ to be served on weekends, even if the sentence cannot be served in consecutive sequence. However, if the defendant is ordered to a term of 48 hours or more or has 48 hours or more remaining on a term of imprisonment, the defendant shall be required to serve 48 continuous hours of imprisonment to be given credit for time served. Credit for any jail time shall only be given hour for hour for time actually served. The jail shall maintain a log showing number of hours served. The Court may provide for the DWI case manager [Recommendation 1, Recommendation 46 Compliance with Sanctions] in consultation with the Sheriff's Office to determine which weekends the defendant shall served. If the defendant appears at the jail and has remaining in his body any alcohol as shown by an alcohol screening device or controlled substance previously consumed, unless lawfully obtained and taken in therapeutically appropriate amounts, the defendant shall be refused entrance and shall be reported back to court. If after a hearing the court determines that when the defendant reported to jail, the defendant had remaining in his body any alcohol previously consumed as shown by an alcohol screening device or controlled substance previously consumed, unless lawfully obtained and taken in therapeutically appropriate amounts, the defendant must be ordered to serve his jail time immediately and shall not be eligible to serve jail time on weekends.

7A-109.3. Records of Offenses Involving Impaired Driving.

The clerk of superior court shall maintain all records relating to an offense involving impaired driving as defined in G.S. 20-4.01(24a) for a minimum of 10 years from the date of conviction. Prior to destroying the record the clerk must record the name of the defendant, the judge, the prosecutor and the attorney or whether there was a waiver, the alcohol concentration or the fact of refusal and the sentence imposed and whether the case was appealed to superior court and its disposition.

Appendix Q

INCREASE COLLECTION OF FINES AND FEES

- a. Prohibit court ordered waiver of payment of any fee or fine without specific findings by the trial judge that the driver is incapable of ever paying;
- b. Require clerk to establish accounts receivable and AOC to report to General Assembly;
- c. Impose fee if drivers license or registration tag is not surrendered.

20-179. Sentencing hearing after conviction for impaired driving; determination of grossly aggravating and aggravating and mitigating factors; punishments.

(u) Fees and fines. A fee, fine or cost that is authorized by law to be imposed for a person sentenced under this section shall not be waived or remitted unless the court determines that the person is indigent and incapable of paying now and will not be capable of paying during the term of probation.

§ 7A-108. Accounting for fees and other receipts; annual audit.

(a) The Administrative Office of the Courts, subject to the approval of the State Auditor, shall establish procedures for the receipt, deposit, protection, investment, and disbursement of all funds coming into the hands of the clerk of superior court. The fees to be remitted to counties and municipalities shall be paid to them monthly by the clerk of superior court.

(b) The operations of the Administrative Office of the Courts and the Clerks of Superior Court shall be subject to the oversight of the State Auditor pursuant to Article 5A of Chapter 147 of the General Statutes.

(c) The procedures specified in subsection (a) at a minimum shall required each clerk of superior court within 48 hours of any court order to establish an accounts payable for all funds required to be paid to the clerk of superior court and still owed. In addition to the procedures of G.S 20-24.1 & 20-24.2, the clerk shall report all persons back to court who are 6 months over due on payments. By March 1, The Administrative Office of the Courts shall provide an annual report of the previous calendar year to the Joint Legislative Commission on Governmental Operation on a statewide and county basis the amount of fines costs, restitution and amount and types of fees ordered to be paid at the disposition of any criminal trial, any subsequent reduction of this amount, amount collected and amount still owed.

20-24.3. Surrender of license and registration.

(a) Upon conviction for an offense which requires the Division to revoke a person's drivers license, the person shall surrender to the court his most recent valid drivers license issued by the Division or by a similar agency in another jurisdiction and any limited driving privilege. For a person who does not surrender the license within 10 days of a conviction the clerk shall impose the fee of fifty dollars specified in 7A-304(a)(6). A person who is unable to locate his

license or whose license is revoked and does not have a limited driving privilege must file an affidavit with the clerk stating that he is validly licensed and he is unable to locate it or that he is revoked. This affidavit shall constitute surrender of the license.

(b) Upon conviction for an offense which requires the Division to revoke a person's registration, the person shall surrender to the court all registration plates and registration cards issued to him by the Division. For a person who does not surrender the registration plates and cards within 10 days of a conviction the clerk shall impose the fee of fifty dollars specified in 7A-304(a)(6) for each such tag or card not surrendered. A person who surrenders his registration plate and card to the Division may submit the receipt issued by the Division in lieu of surrendering the tag to the court.

Appendix R

Make it illegal for a person age 21 to “consume” alcohol as well as “possess” and allow alcohol screening device to prove the person has consumed alcohol.

§ 18B-302. Sale to or purchase by underage persons.

(a) Sale. - It shall be unlawful for any person to:

- (1) Sell or give malt beverages or unfortified wine to anyone less than 21 years old; or
- (2) Sell or give fortified wine, spirituous liquor, or mixed beverages to anyone less than 21 years old

(b) Purchase or Possession. - It shall be unlawful for:

- (1) A person less than 21 years old to purchase, to attempt to purchase, or to possess malt beverages or unfortified wine; or
- (2) A person less than 21 years old to purchase, to attempt to purchase, or to possess fortified wine, spirituous liquor, or mixed beverages; or
- (3) A person less than 21 years old to consume any alcoholic beverage.

* * * * *

(i) Purchase or Possession by 19 or 20-Year Old. – A violation of subdivision (b)(1) or (b)(3) of this section by a person who is 19 or 20 years old is a Class 3 misdemeanor.

(j) Notwithstanding any other provisions of law, a law enforcement officer may require any person the officer has probable cause to believe is underage 21 and who has consumed alcohol to submit to an alcohol screening test using a device approved by the Department of Health and Human Services. The results of any screening device administered in accordance with the rules of the Department of Health and Human Services shall be admissible in any court or administrative proceeding to prove that a person possessed or consumed an alcoholic beverage.

Appendix S

REQUIRE THAT DEFENDANTS WHO ARE RELEASED FROM PRISON EARLY TO BE ASSIGNED TO HOUSE ARREST OR COMMUNITY SERVICE PAROLE.

The cost of requiring a impaired driver to fully serve his sentence was \$100 million dollars. This proposal will require some control of the hard core impaired driver. **[Recommendation 2, Compliance with Sanctions]**

G.S. 15A-1371

(h) Community Service Parole and house arrest. -- Notwithstanding the provisions of any other subsection herein, prisoners serving sentences for impaired driving who are granted early release shall be ~~eligible for~~ assigned community service parole or house arrest, ~~in~~ the discretion of the Post-Release Supervision and Parole Commission.

Community service parole is early parole for the purpose of participation in a program of community service under the supervision of a probation/parole officer. A parolee who is paroled under this subsection must perform as a condition of parole community service in an amount and over a period of time to be determined by the Post-Release Supervision and Parole Commission. However, the total amount of community service shall not exceed an amount equal to 32 hours for each month of active service remaining in his minimum sentence. The Post-Release Supervision and Parole Commission may grant early parole under this section without requiring the performance of community service if it determines that such performance is inappropriate to a particular case.

The probation/parole officer and the community service coordinator shall develop a program of community service for the parolee. The community service coordinator shall report any willful failure to perform community service work to the probation/parole officer. Parole may be revoked for any parolee who willfully fails to perform community service work as directed by a community service coordinator or violates the rules for house arrest. The provisions of G.S. 15A-1376 shall apply to this violation of a condition of parole.

Community service parole or house arrest eligibility shall be available to a prisoner:

- (1) Who is serving an active sentence the term of which exceeds six months; and
- (2) Who, in the opinion of the Post-Release Supervision and Parole Commission, is unlikely to engage in further criminal conduct; and
- (3) Who agrees to complete service of his sentence as herein specified; and
- (4) Who has served one-half of his minimum sentence.

In computing the service requirements of subdivision (4) of this subsection, credit shall be given for good time and gain time credit earned pursuant to G.S. 148-13. Nothing herein is intended to create or shall be construed to create a right or entitlement to community service parole or house arrest in any prisoner. The Post-Release Supervision and Parole Commission may impose additional restrictions on consumption of alcohol or other impairing substance and requirements for treatment for substance abuse.

(i) A fee of two hundred dollars (\$ 200.00) shall be paid by all persons who participate in the Community Service Parole Program or house arrest program. That fee must be paid to the clerk of court in the county in which the parolee is released. The fee must be paid in full within two weeks unless the Post-Release Supervision and Parole Commission, upon a showing of hardship by the person, allows the person additional time to pay the fee. The parolee may not be required to pay the fee before the person begins the community service or is assigned to house arrest unless the Post-Release Supervision and Parole Commission specifically orders that the person do so. Fees collected under this subsection shall be deposited in the General Fund. The fee imposed under this subsection may be paid as prescribed by the supervising parole officer.

(j) The Post-Release Supervision and Parole Commission may terminate a prisoner's community service parole or house arrest before the expiration of the term of imprisonment where doing so will not endanger the public, unduly depreciate the seriousness of the crime, or promote disrespect for the law.

APPENDIX E

NCDOT WORK ZONE SAFETY PLAN

APPENDIX F

NCDOT BICYCLE AND PEDESTRIAN SAFETY PLAN

**Division of Bicycle and Pedestrian Transportation Initiatives Related to
Key Emphasis Areas as identified in the AASHTO Strategic Highway Plan**

ITEM 9 - MAKING WALKING AND STREET CROSSING EASIER

- Ten one-day pedestrian planning and design workshops for transportation professionals
- Two 1.5-day Designing for Accessibility workshops
- Planning Grant Initiative funding for 32 comprehensive pedestrian transportation plans
- FHWA Safe Routes to School pilot program at six NC elementary schools
- NC DOT Task Force on Mainstreaming bicycle and pedestrian accommodations
- Regional Walkable Community Conferences in Asheville, Raleigh, Charlotte, Greenville and Winston-Salem
- Pedestrian Safety Road Show Training (an FHWA initiative) in 25 NC localities
- "Planning and Designing Local Pedestrian Facilities" manual
- Extensive technical information on web site
- Technical assistance program to localities
- Construction of off-road multi-use paths throughout the state
- Highway project review and recommendations to accommodate pedestrian needs
- Crash studies with interactive data analysis tool on web
- Secretary's Pedestrian and Bicycle Safety Summit 2000
- Board of Transportation Resolution on Mainstreaming Bicycling and Walking 2000
- Statewide pedestrian and bicycle survey in 2000
- School crossing guard training manual and workshops
- School walk zone study

ITEM 10 – ENSURING SAFER BICYCLE TRAVEL

- Planning Grant Initiative funding for 16 comprehensive bicycle transportation plans
- Seven one-day bicycle planning and design workshops for transportation professionals
- FHWA Safe Routes to School pilot program at six NC elementary schools
- NC DOT Task Force on Mainstreaming bicycle and pedestrian accommodations
- "Bicycle Planning and Design Guidelines" manual and video
- Bicycle facility design workshops
- Basics of Bicycling Curriculum with teacher training (implemented in 50 NC school systems)
- Statewide system of mapped and signed bicycle routes
- Construction of off-road multi-use paths throughout the state
- Construction of on-road improvements for bicycles as part of highway projects
- Promotion of bicycle helmet legislation and supporting programs
- Extensive technical information on web site
- Technical assistance program to localities
- Highway and bridge project review and recommendations to accommodate bicycle needs
- Crash studies with interactive data analysis tool on web
- Secretary's bicycle helmet initiative 2001 (distribution of over 42,000 helmets)
- Secretary's Pedestrian and Bicycle Safety Summit 2000
- Board of Transportation Resolution on Mainstreaming Bicycling and Walking 2000
- Statewide pedestrian and bicycle survey in 2000
- Distribution of bicycle safety materials (500,000 pieces per year to more than 250 NC localities)